Exhibit 1—Measuring unsheltered distance (L factor)

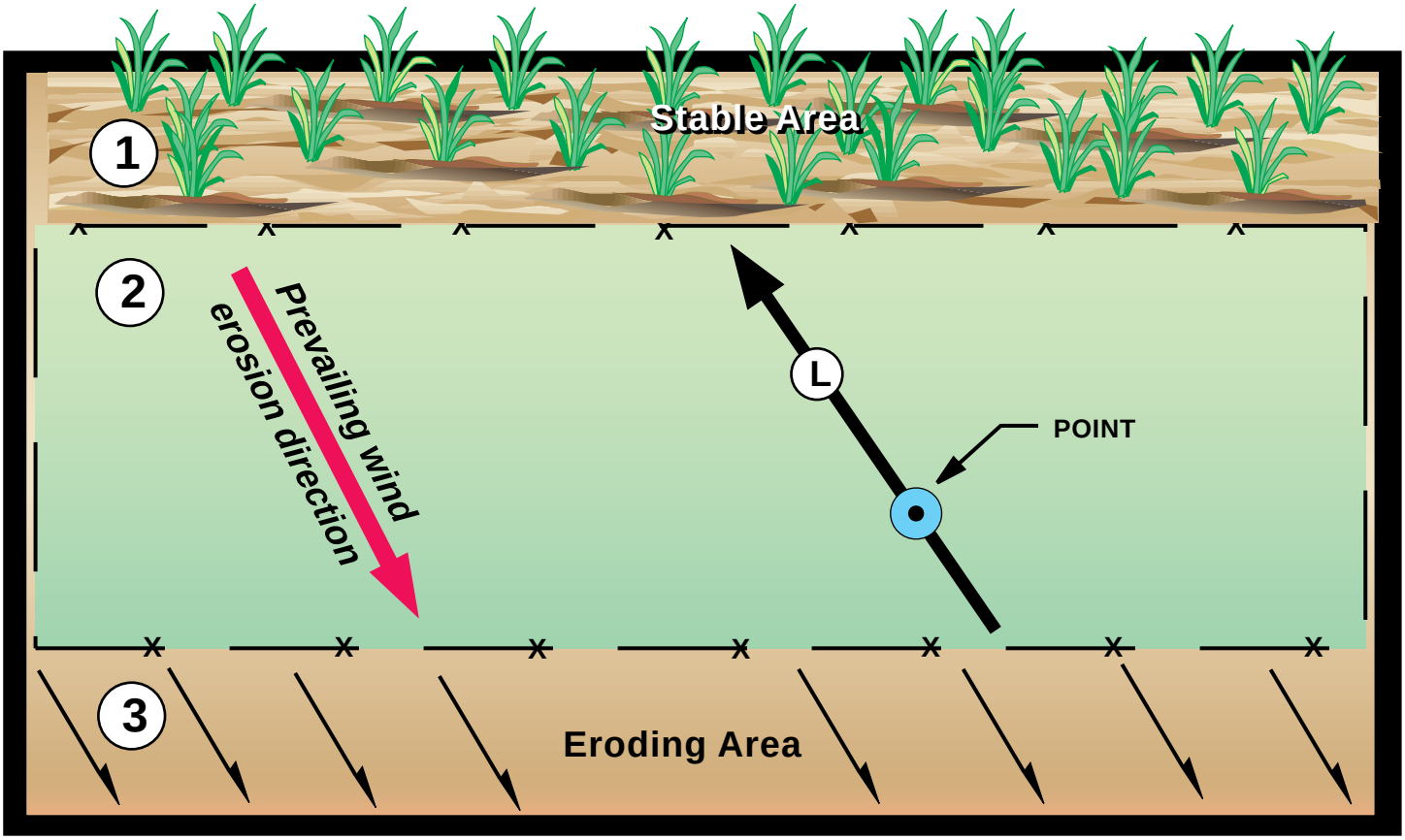


Figure L-1—***Moving Upward to Stable Area at Leeward Edge of Adjacent Field***

Measure L by beginning at the downwind edge of field 2. Do not be concerned about field 3, even though it may be eroding. Move upwind in the direction of the prevailing wind erosion direction during the critical wind erosion period. Move through the point and stop at the stable area at the leeward edge of field 1.

Exhibit 1. Measuring unsheltered distance (L factor) — Continued

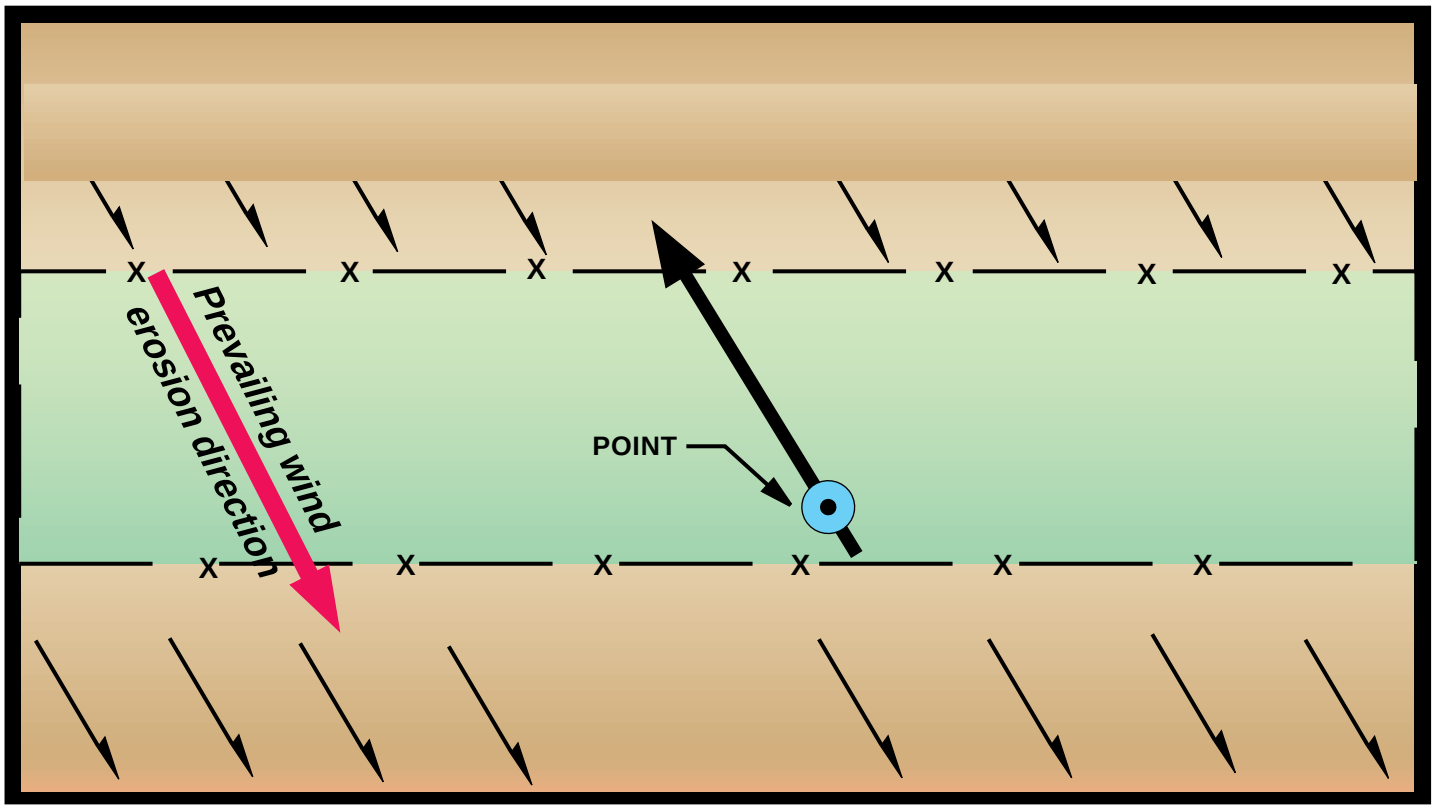


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

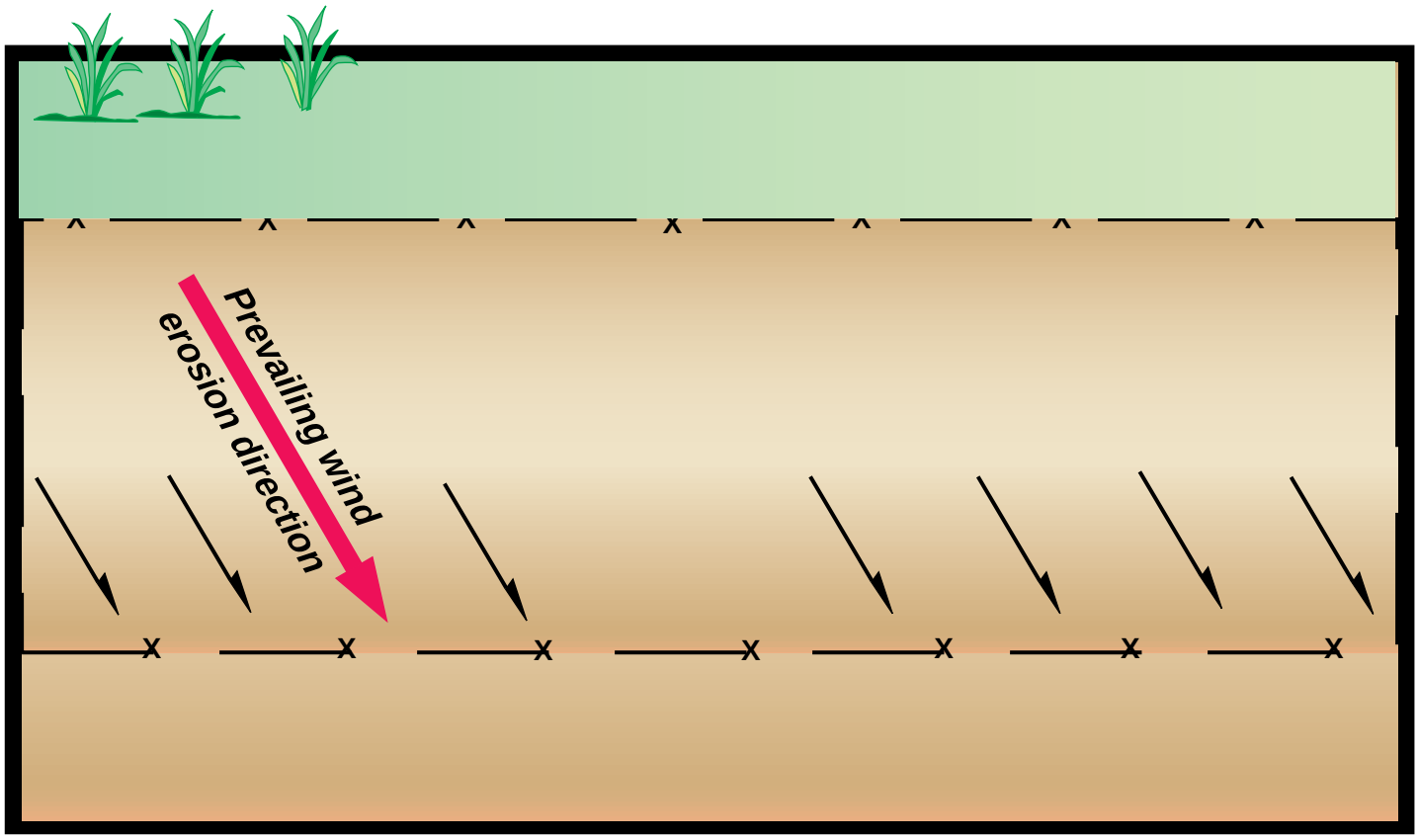


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

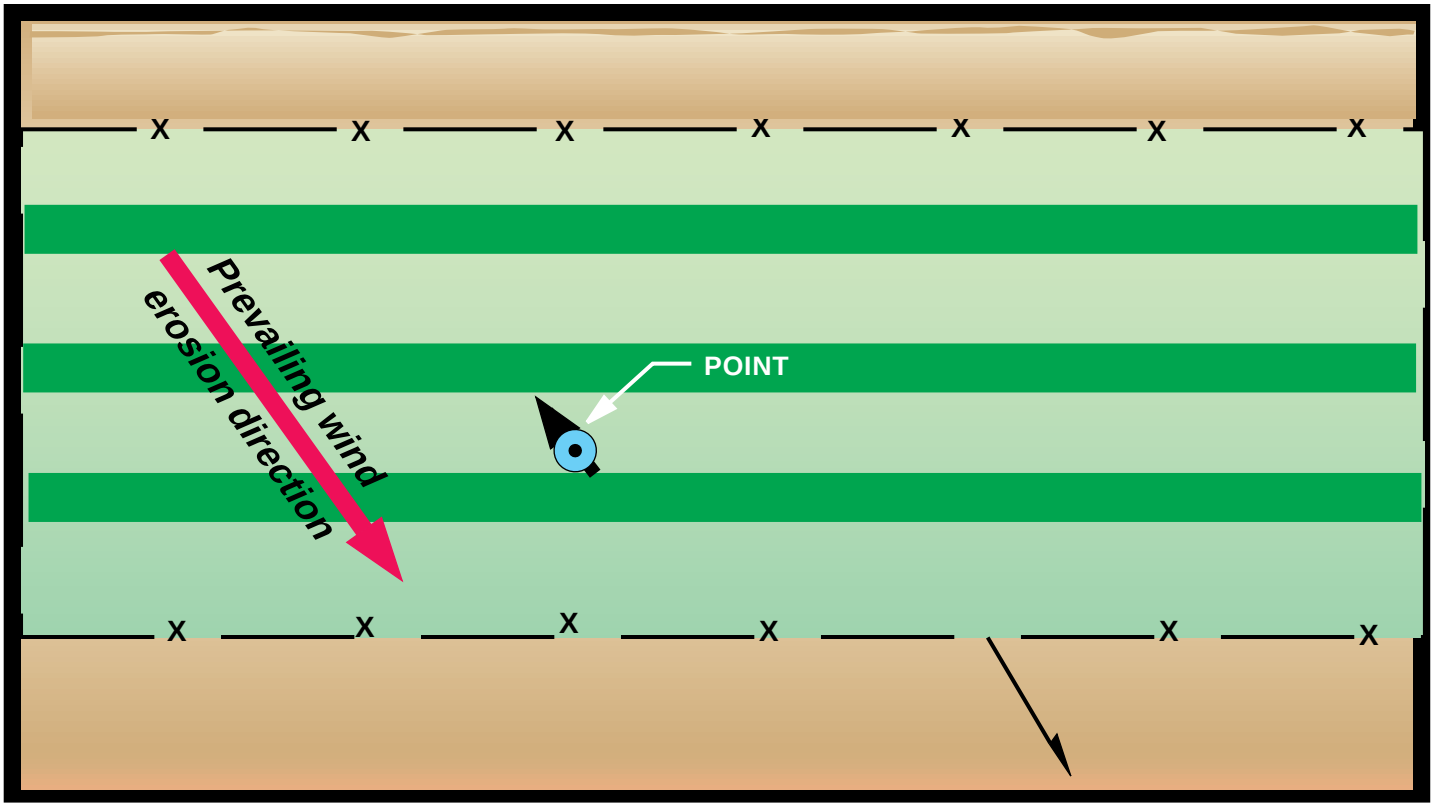


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

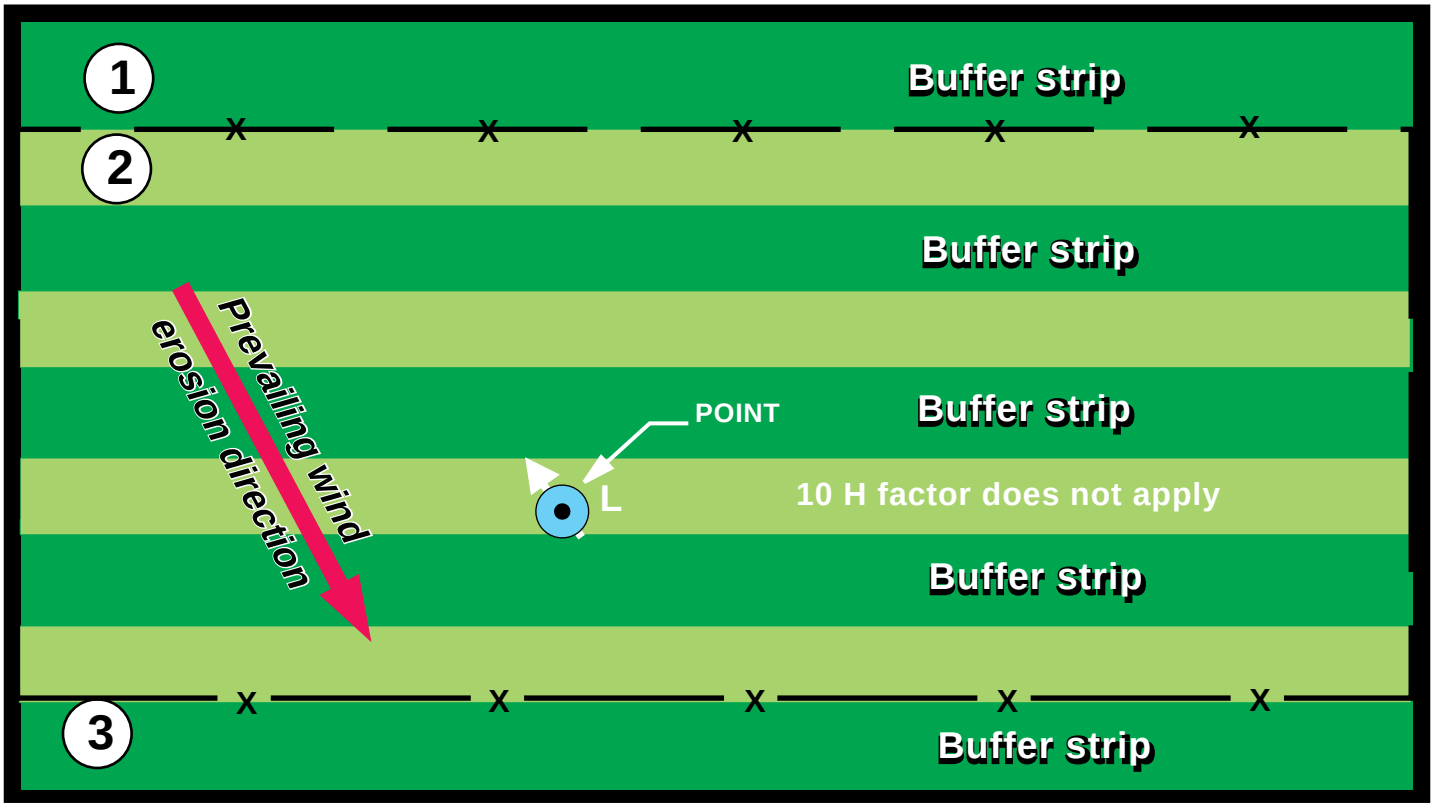


Figure L-5—***Considering Buffers in Determining the L Factor***

In this example, field 2 has buffer areas. Buffer areas are considered when measuring L. Measure L beginning at the downwind edge of the tilled area where the point falls. Move upwind in the direction of the prevailing wind erosion direction during the critical wind erosion period. Move through the point and stop at the downwind edge of the first buffer area encountered. If the point were to fall on a designed buffer strip (not just a random area that is acting as a buffer), then measure L for the tilled area downwind of the buffer strip where the point fell. If another field or CTU is downwind of the point, measure L for the area upwind of the buffer strip where the point fell. If the buffer area is random rather than a designed strip, consider the area bare and measure L as if the buffer area does not exist.

Exhibit 1. Measuring unsheltered distance (L factor) — Continued

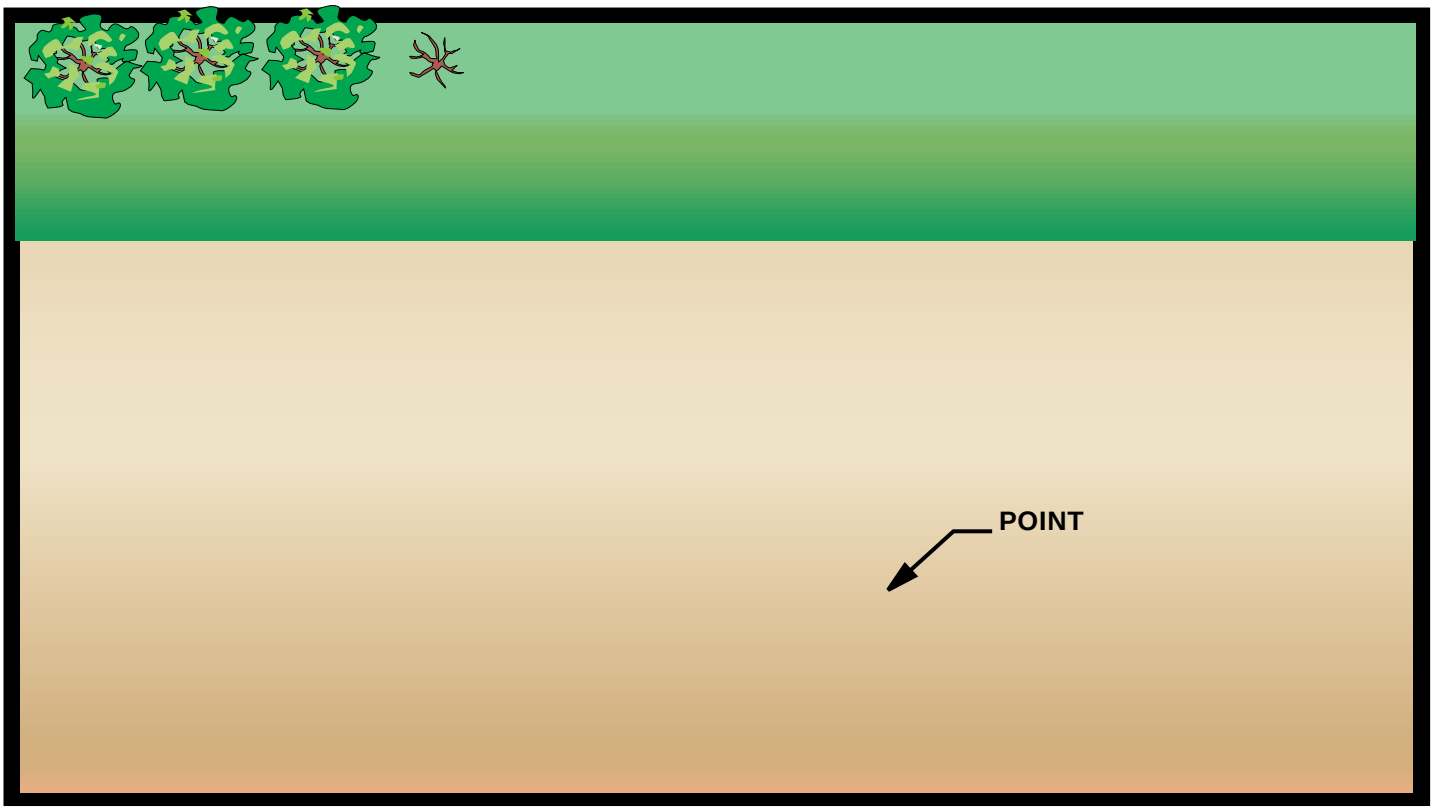


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

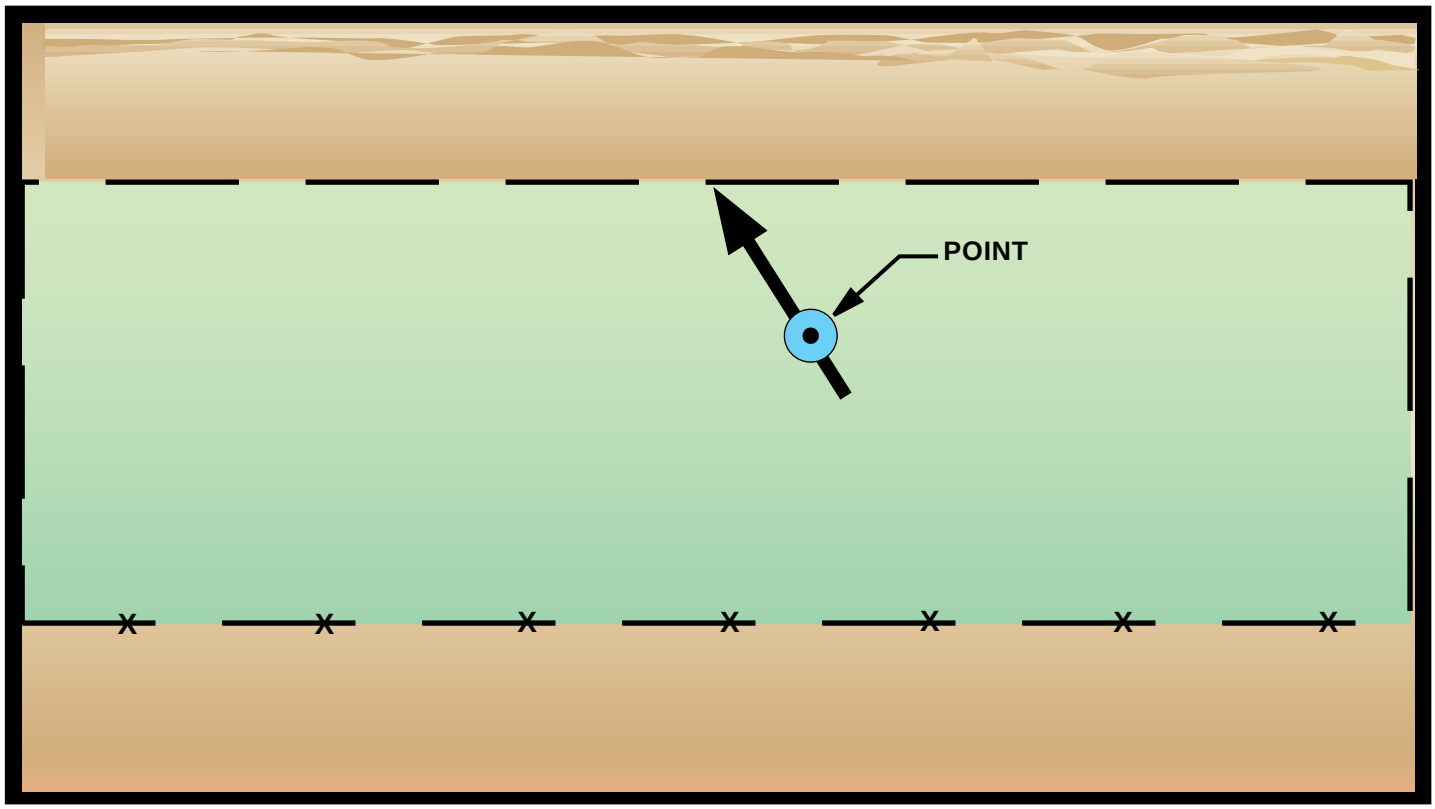


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

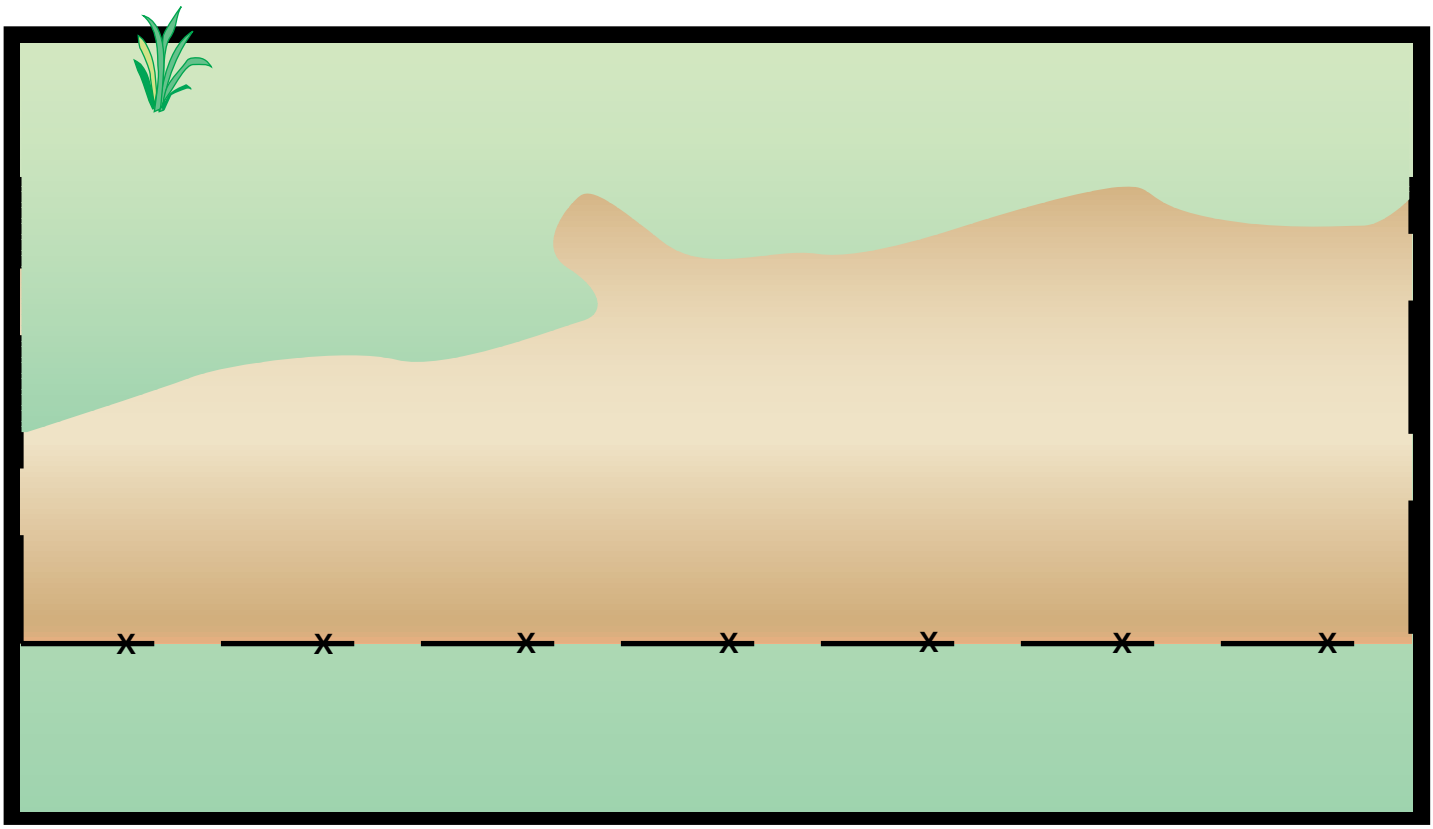


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

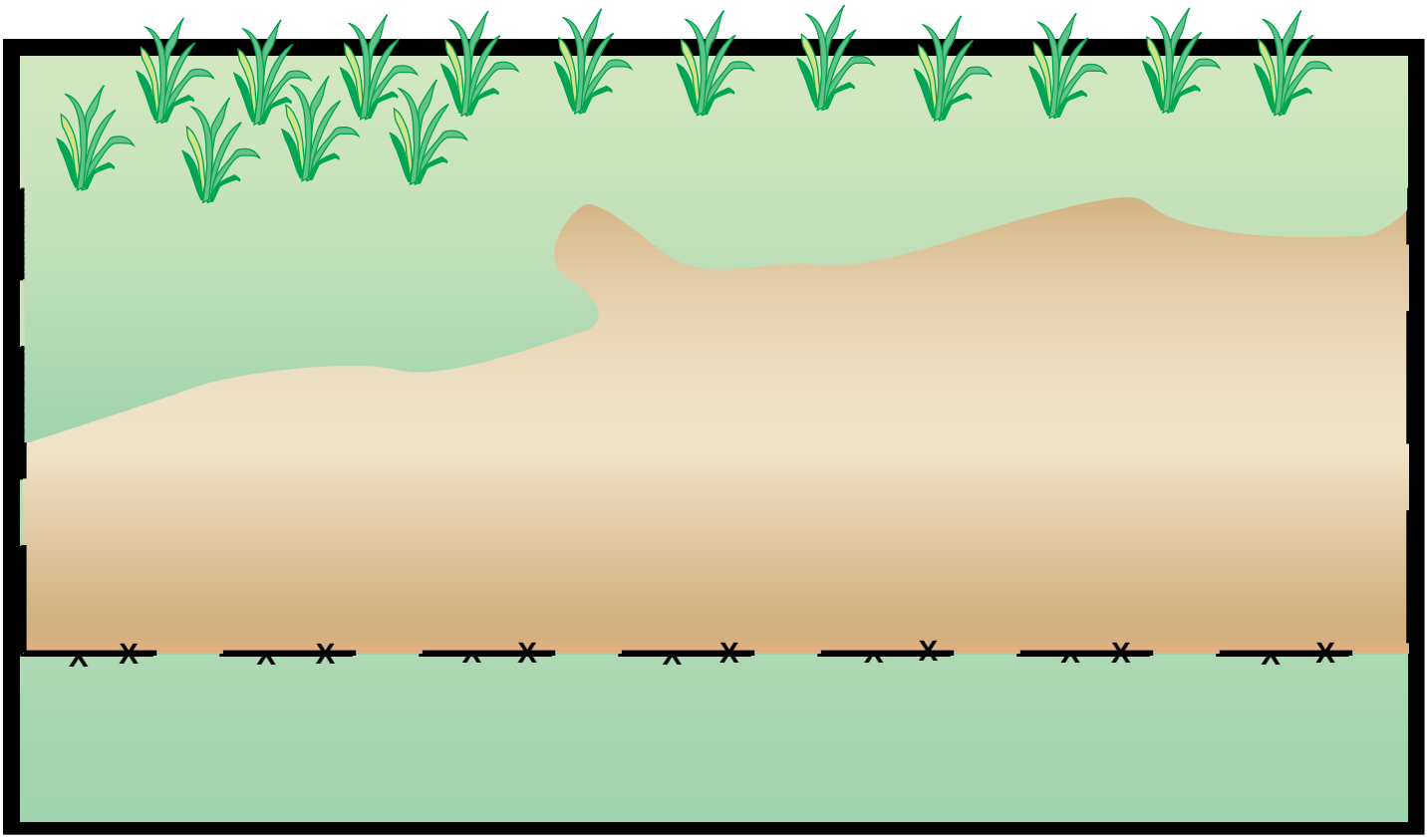


Exhibit 1. Measuring unsheltered distance (L factor) — Continued

Exhibit 1. Measuring unsheltered distance (L factor) — Continued

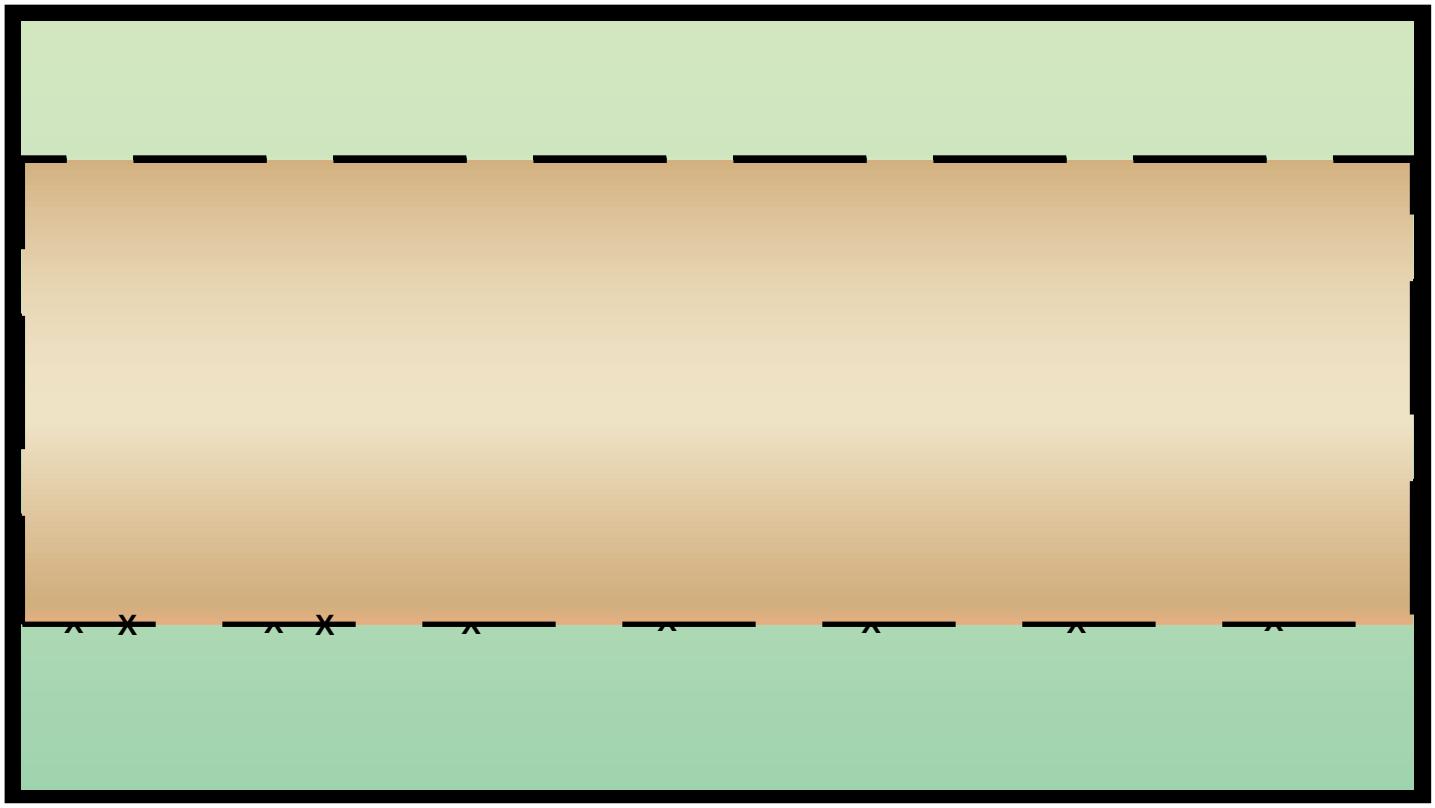


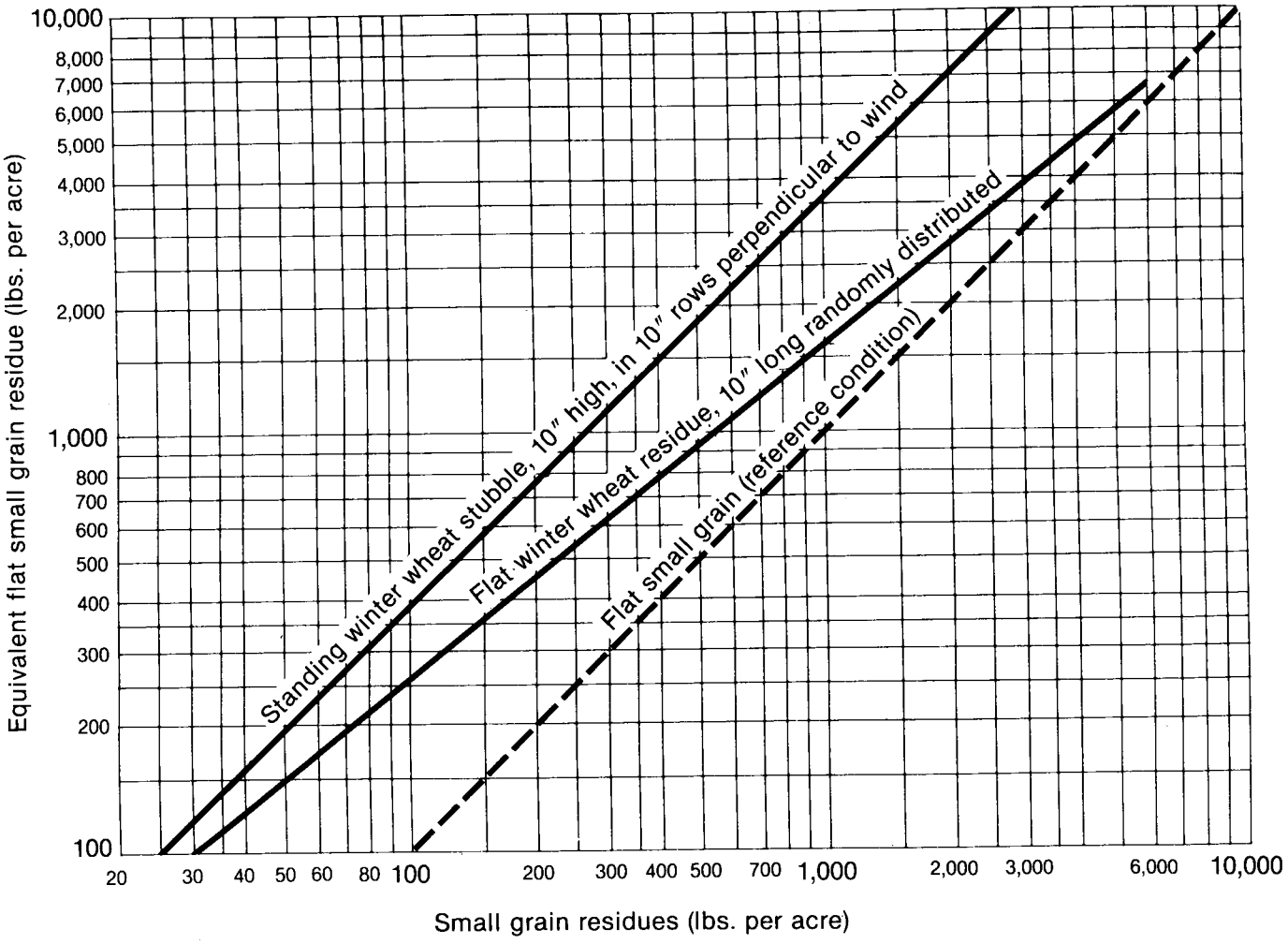
Exhibit 1. Measuring unsheltered distance (L factor) — Continued

Exhibit 2—SGe curves for estimating V factor

1985

Flat Small Grain Equivalents of Small Grain Residues

(Use for wheat, barley, rye and oats)



Reference condition - dry small grain stalks 10” long, lying flat on the soil surface in 10” rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison—Trans. ASAE 1981, 24(2): 405-408.
Residues are washed, air dried, and placed as described for wind tunnel tests.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Small Grain

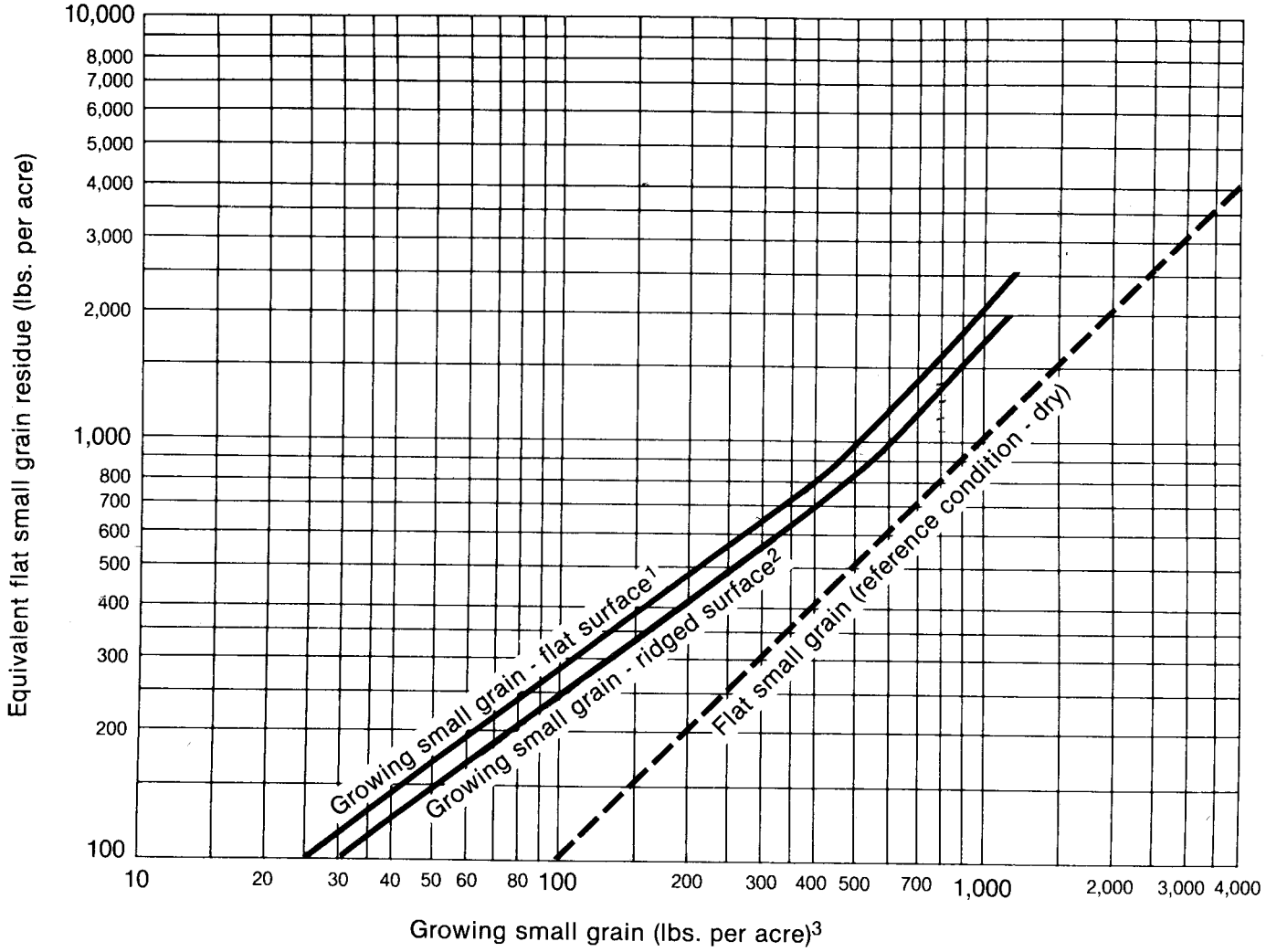
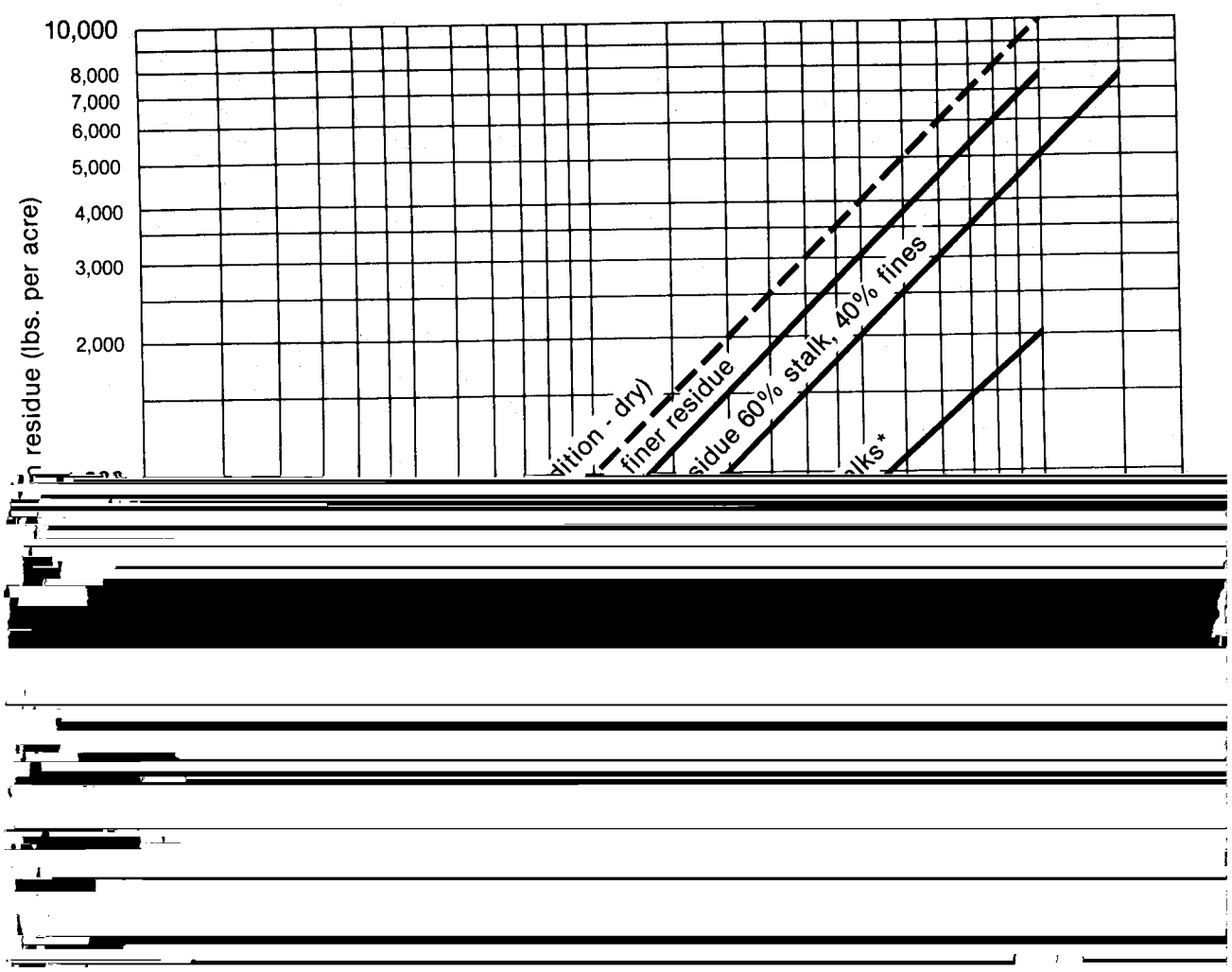


Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Corn Residues

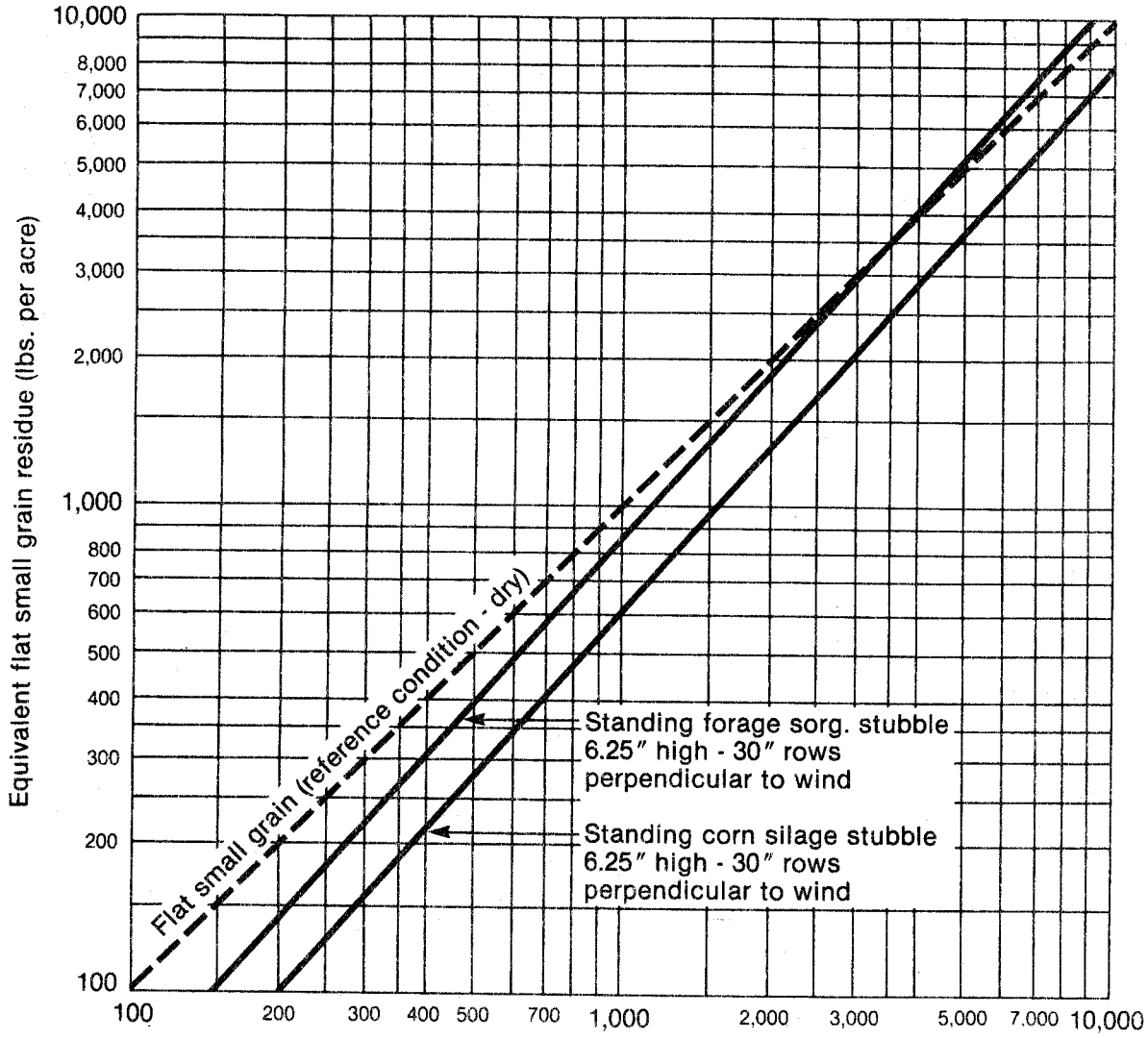


Source: Lyles and Allison, Trans. ASAE 1981, 24(2):405-408. (Flat to 2,000 lbs. standing to 3,500 lbs. Extended by SCS.)

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Corn and Grain Sorghum Silage Stubble

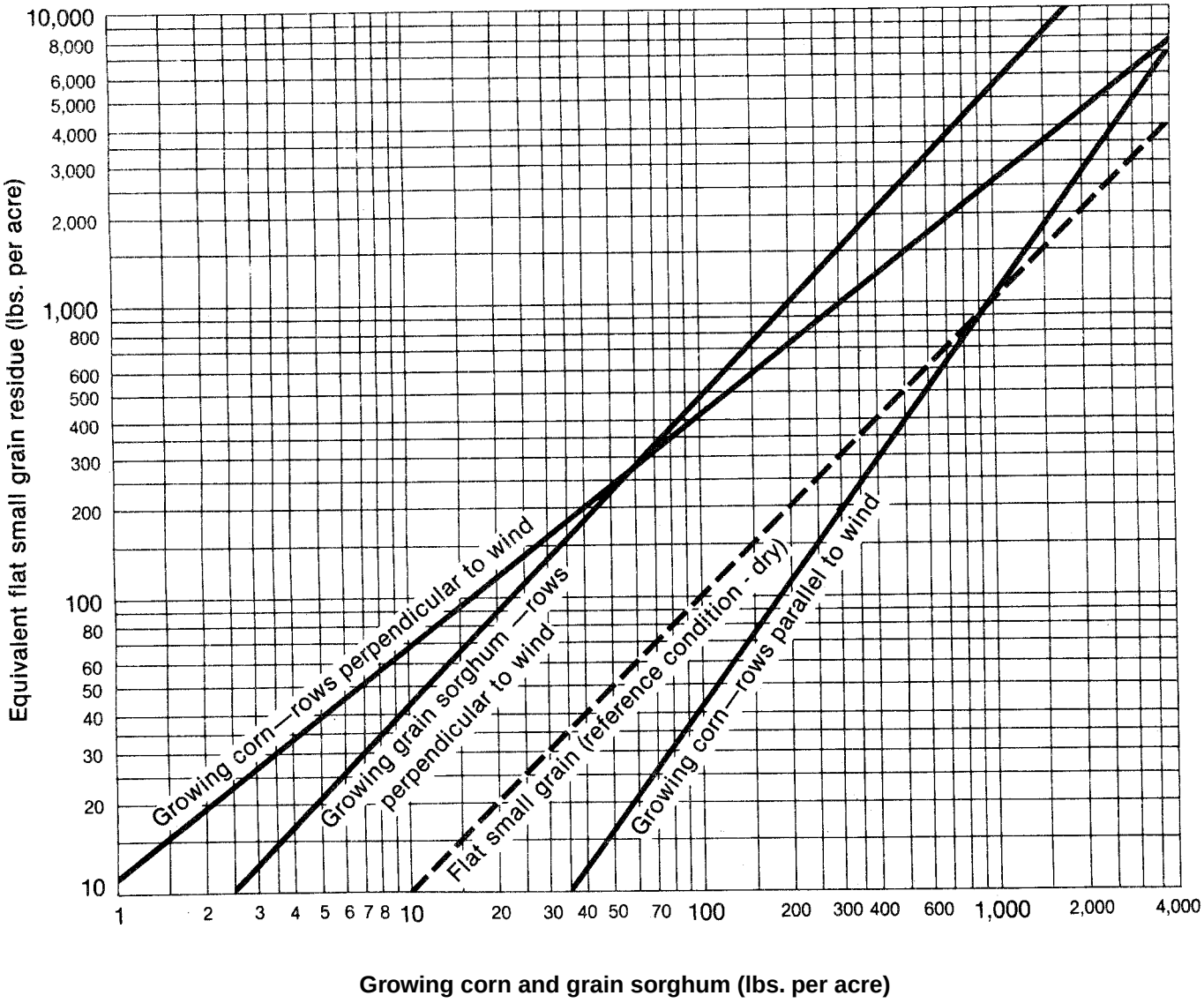


Source: Lyles and Allison, Trans. ASAE 1981. 24(2): 405-408.
Residue weights are washed, air dried, and placed as described for wind tunnel tests.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Corn and Grain Sorghum

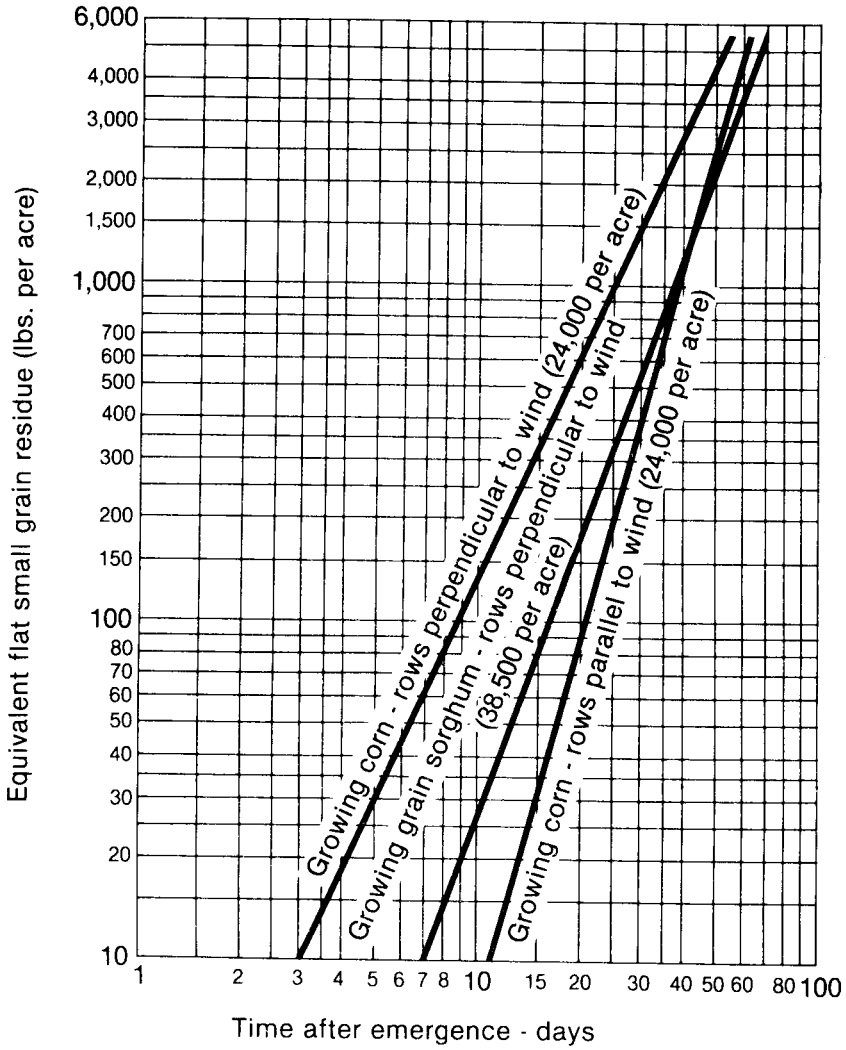


Source: Armbrust & Lyles, 1984 - unpublished

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Corn and Grain Sorghum, Days After Emergence

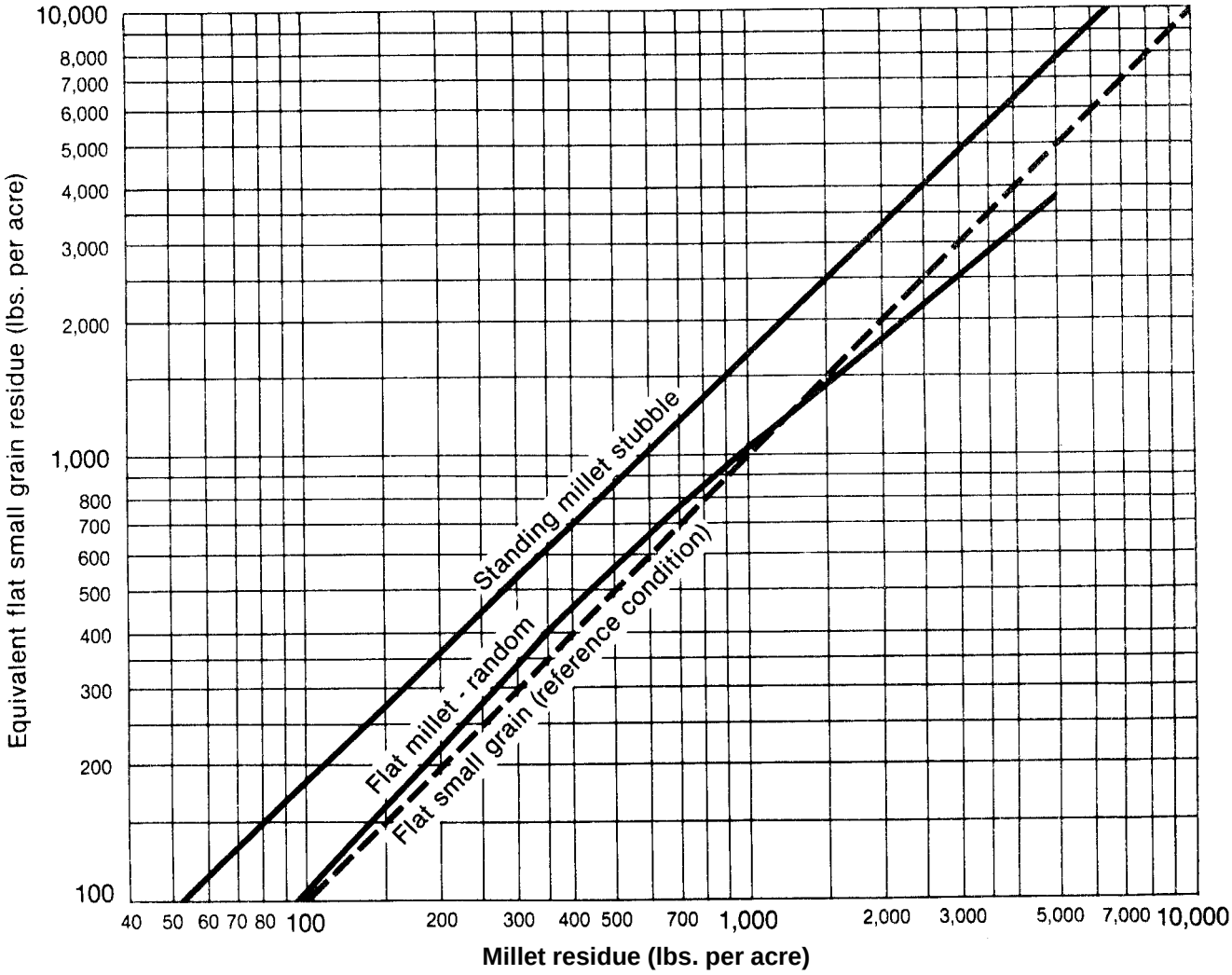


Source: Armbrust and Lyles, 1984-unpublished.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Millet

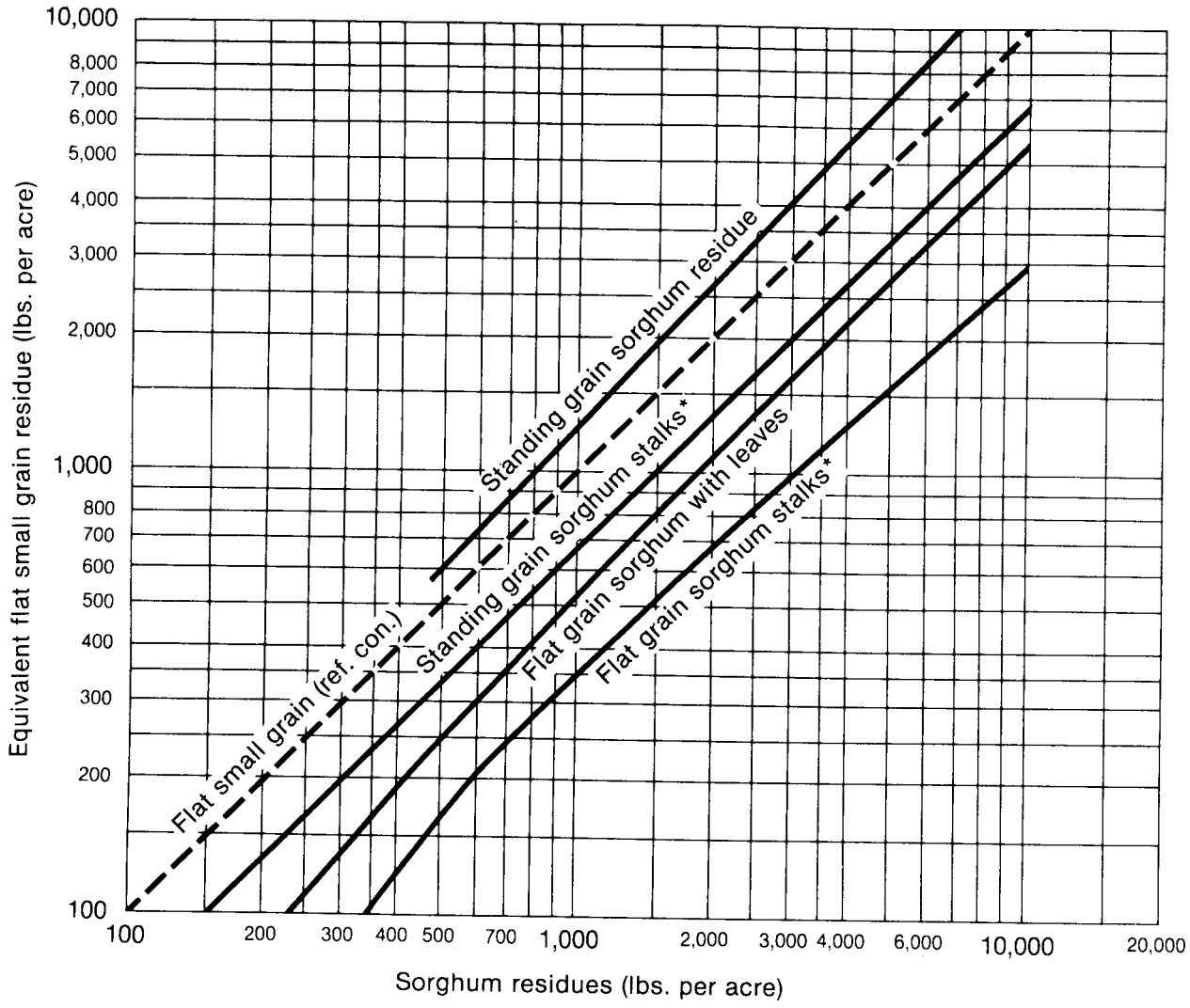


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Leon Lyles, ARS, memorandum, Jan. 25, 1985.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Sorghum Residues

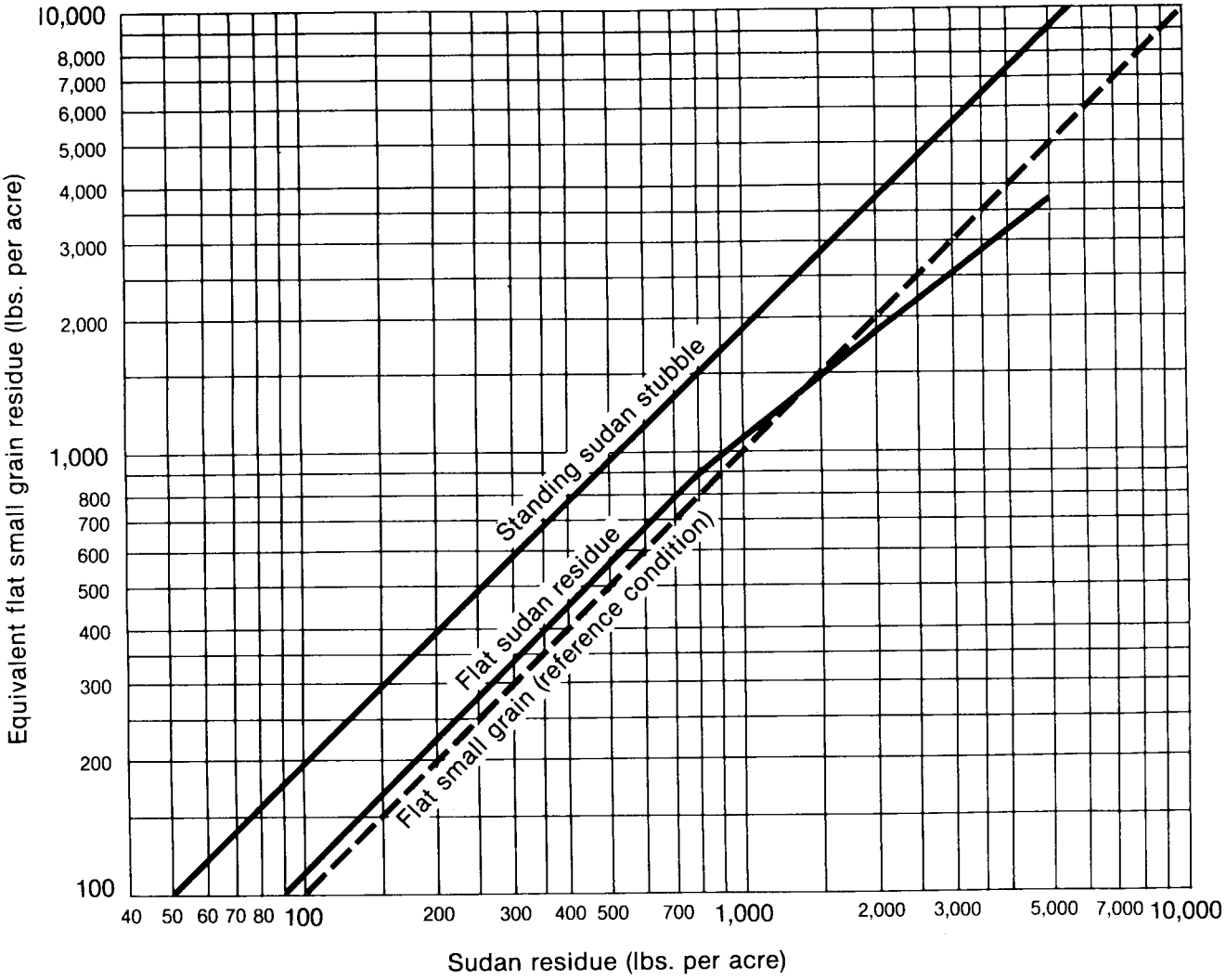


Source: Lyles and Allison, Trans. ASAE 1981, 24(2): 405-408. (Flat to 2500 lbs. standing stalks to 3500 lbs.) Leafy residue estimates by SCS North Central agronomists, 11/84.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Sudan Grass

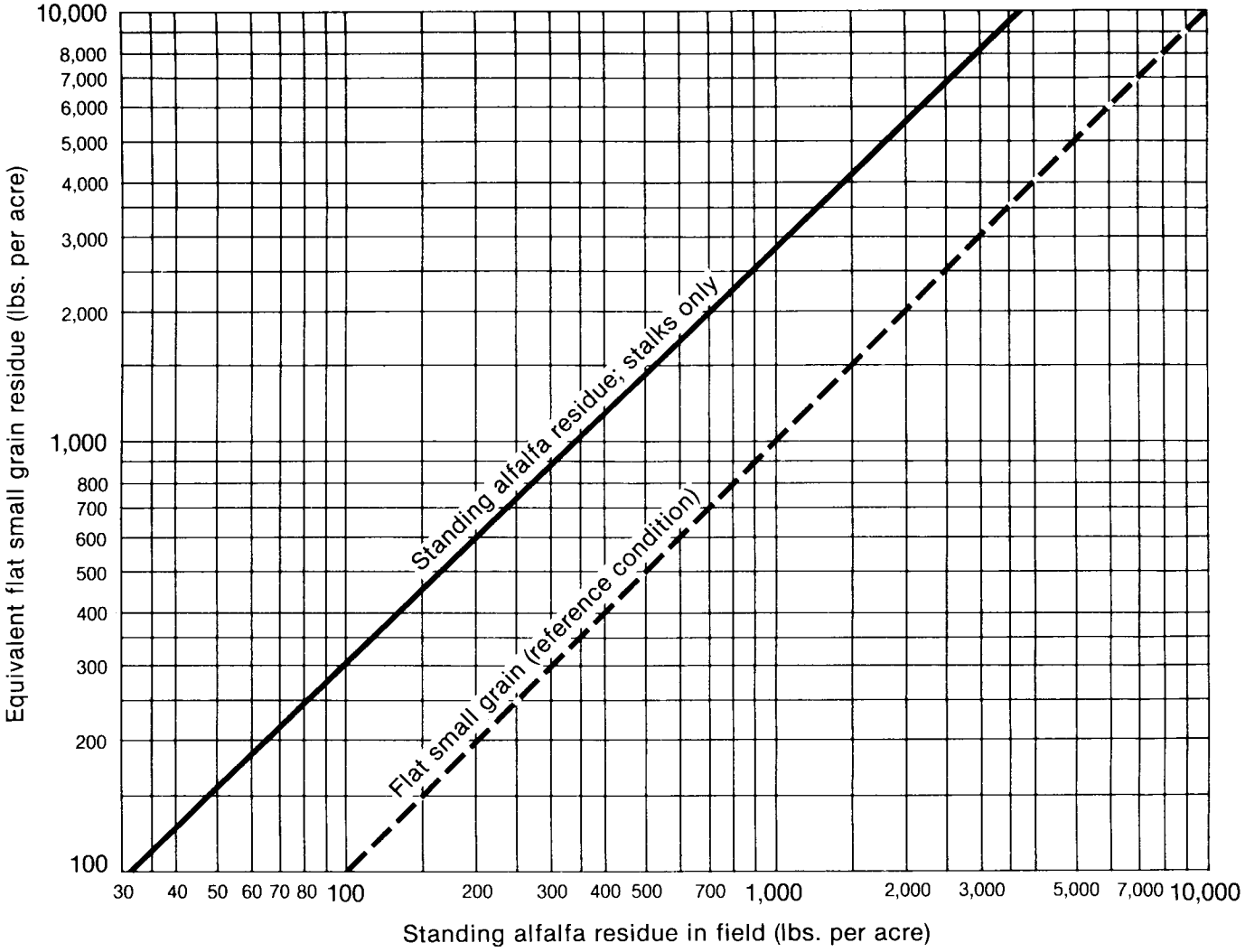


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Leon Lyles, ARS, memorandum, Jan. 25, 1985.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Alfalfa Residues

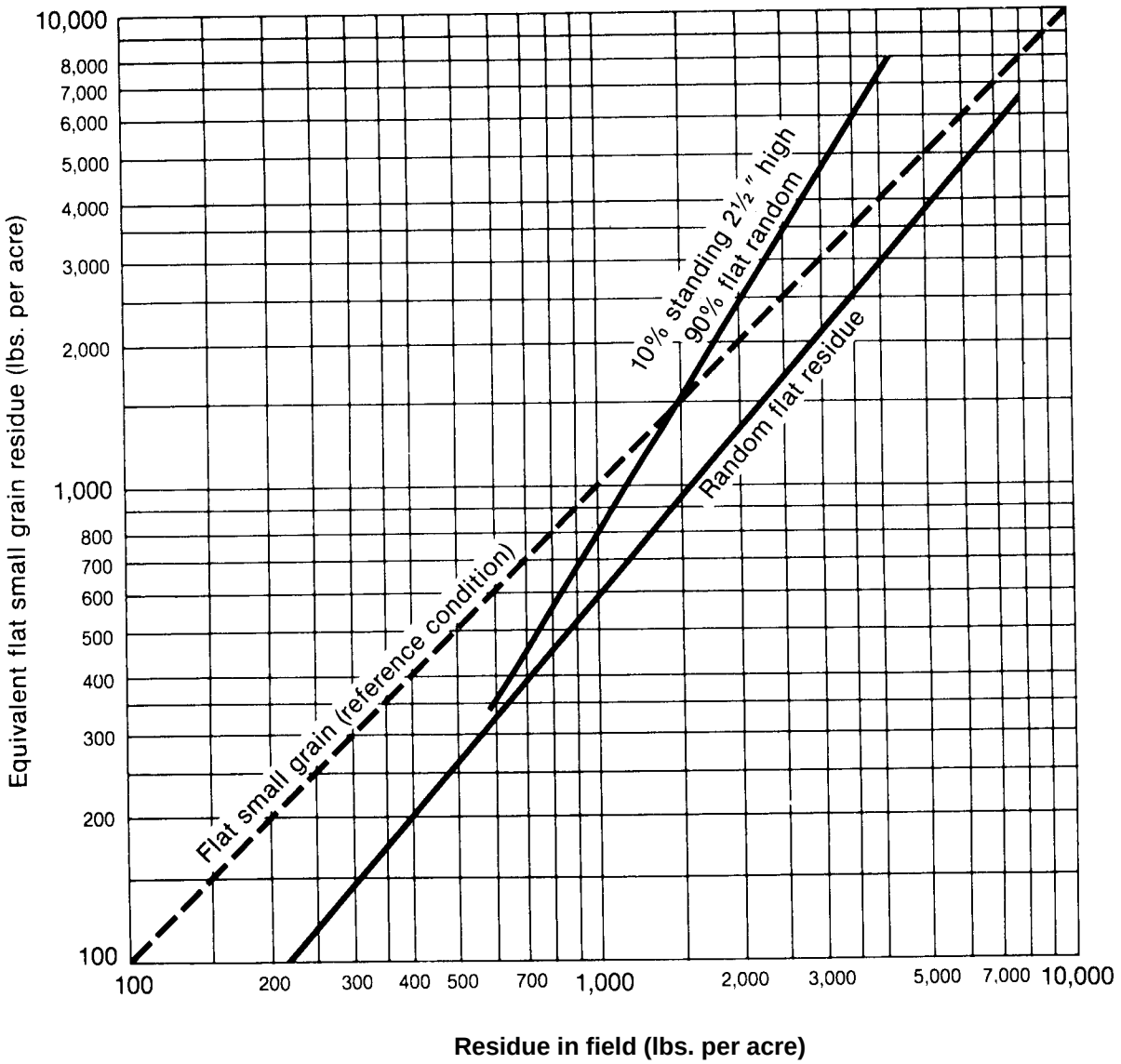


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Unpublished coefficients provided by Leon Lyles, ARS, Wind Erosion Research Unit, Manhattan, KS.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

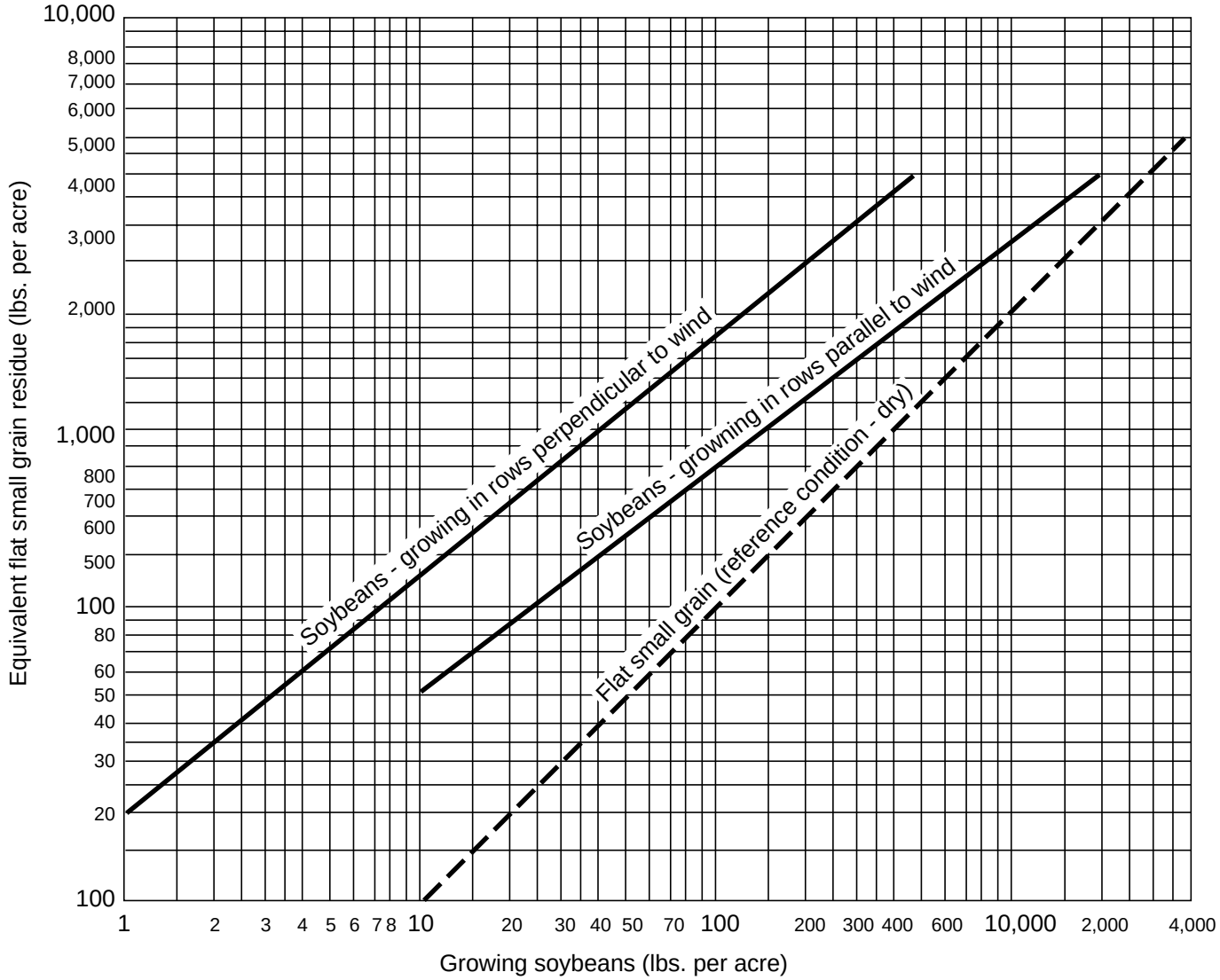
Flat Small Grain Equivalents
Dry Bean, Lentil, *Soybean, & Winter Pea Residues



Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Best Judgement Estimates by SCS, North Central Agronomists, 11/84.
*Soybeans - Lyles and Allison, Trans. ASAE 1981, 24(2): 405-408.

Exhibit 2. SGe curves for estimating V factor — Continued

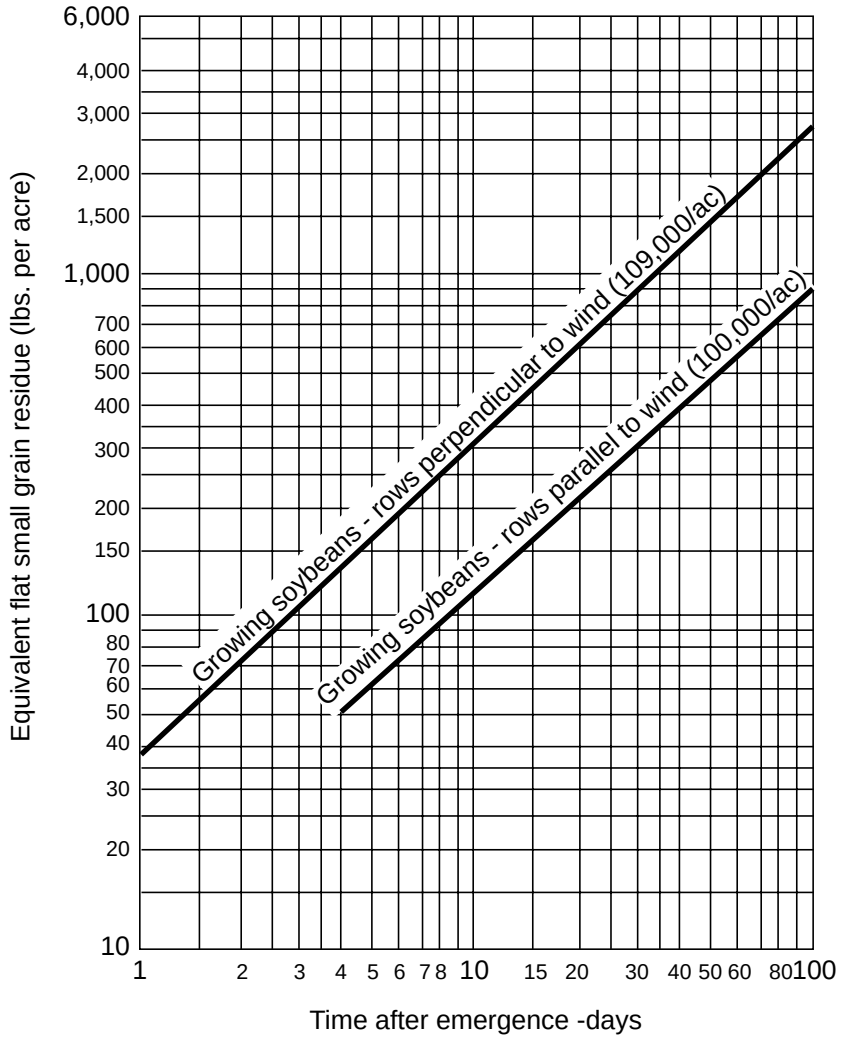
Flat Small Grain Equivalents of Growing Soybeans



Source: Armbrust & Lyles, 1984-unpublished.

Exhibit 2. SGe curves for estimating V factor — Continued

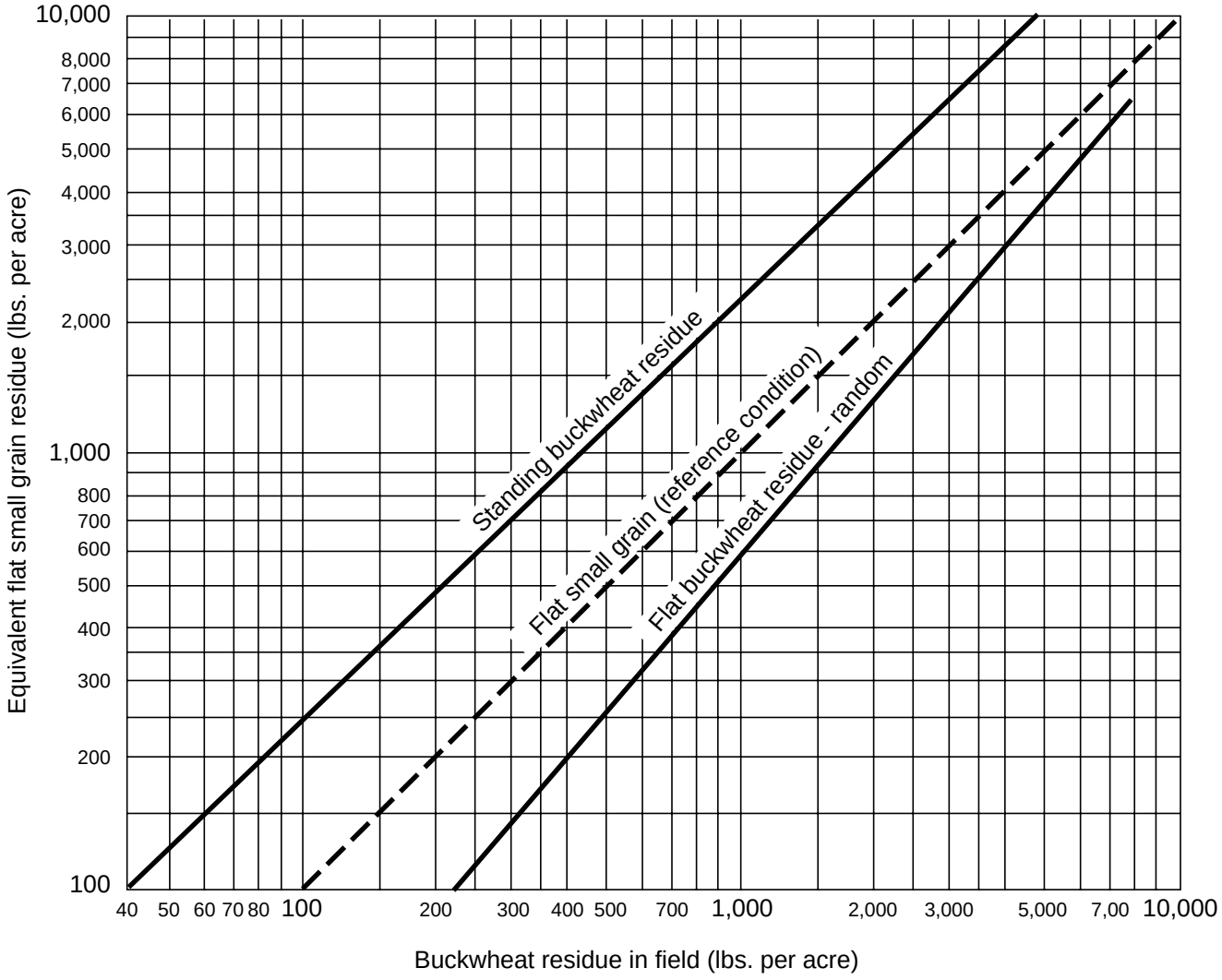
Flat Small Grain Equivalents of Growing Soybeans - Days After Emergence



Source: Armbrust & Lyles, 1984-unpublished.

Exhibit 2. SGe curves for estimating V factor — Continued

Flat Small Grain Equivalents Buckwheat Residue



Reference condition - dry small grain stalks 10" lying, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Best Judgment Estimates by SCS. North Central Agronomists, 11/84.

Exhibit 2. SGe curves for estimating V factor — Continued

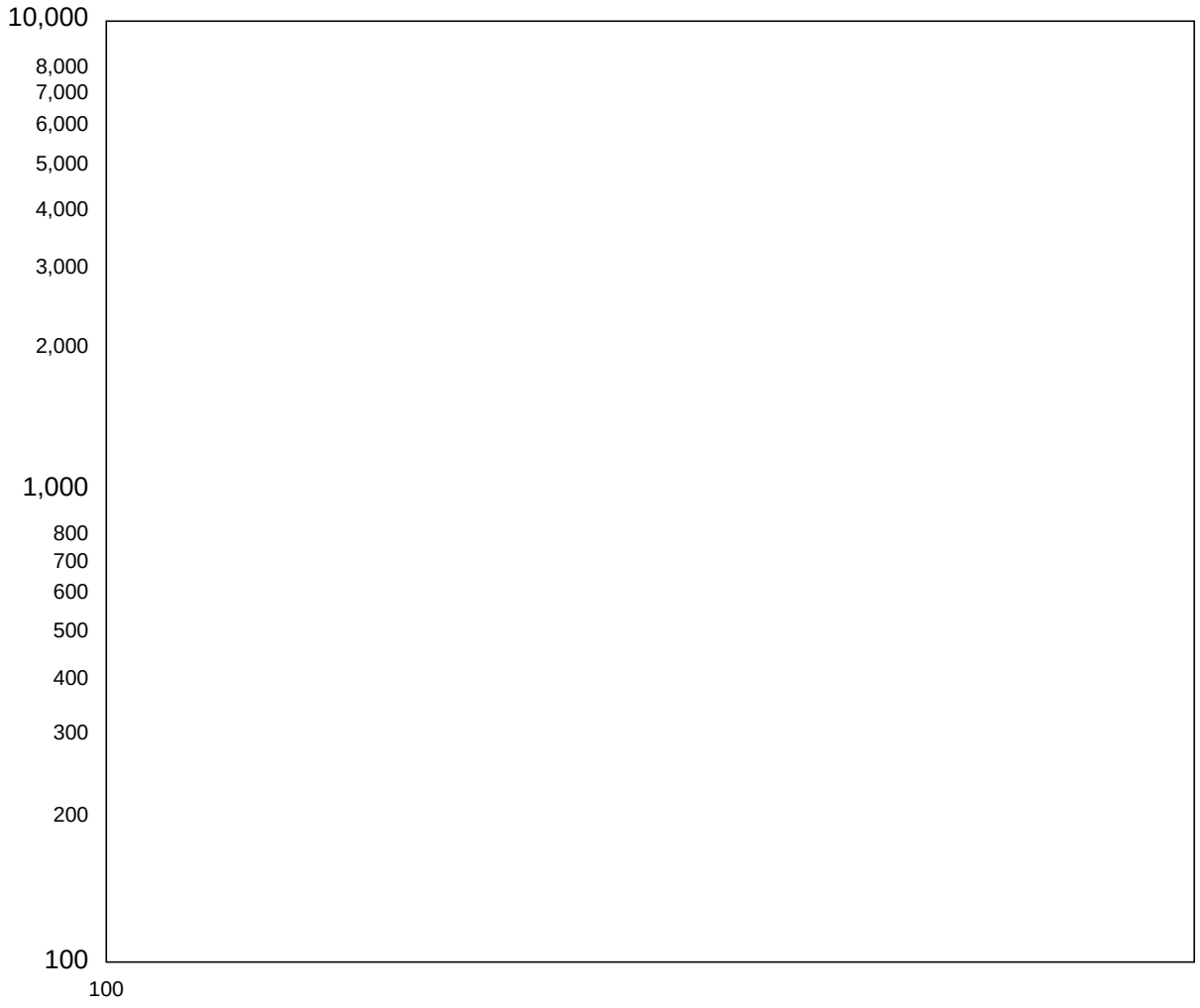
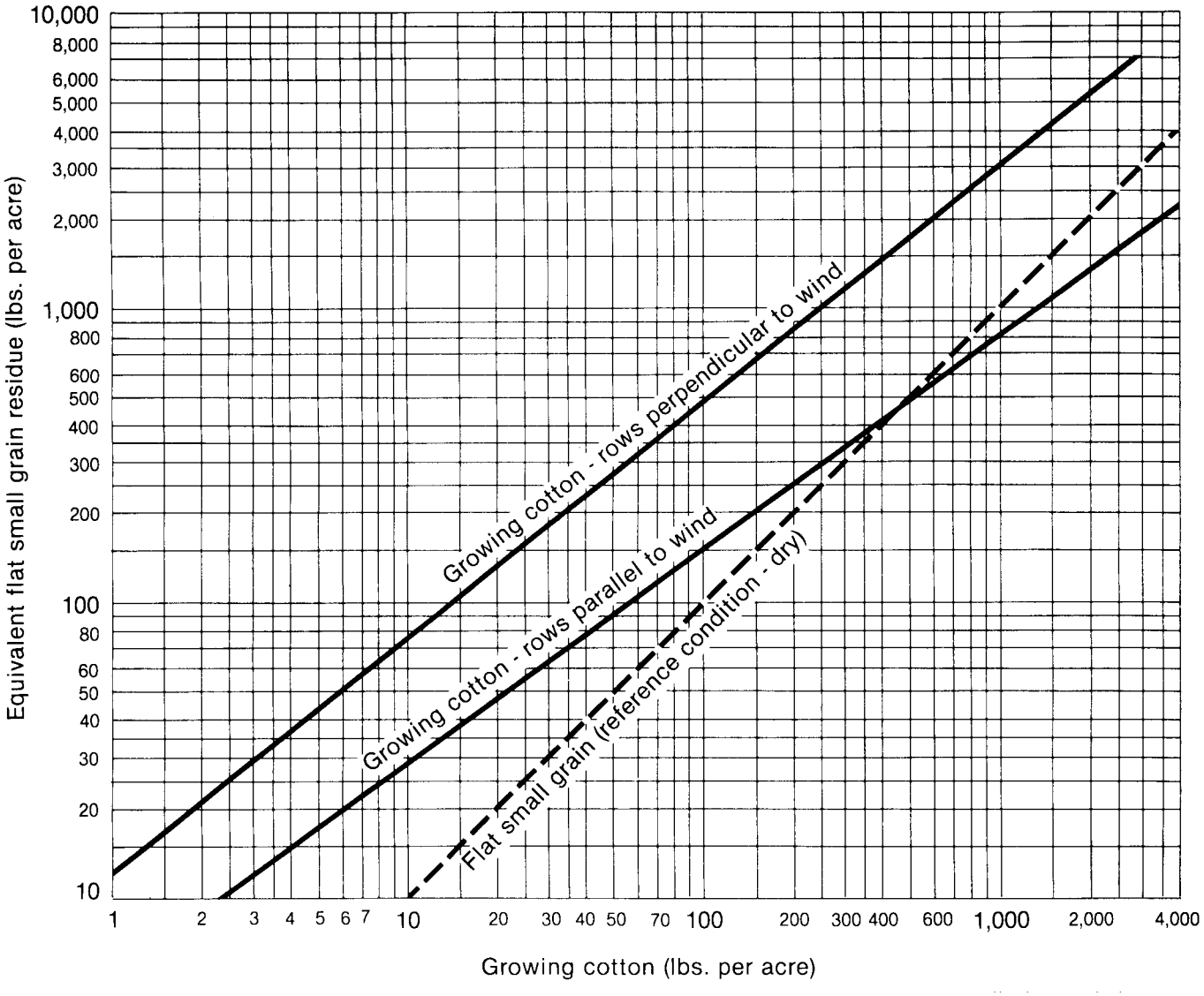


Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Cotton

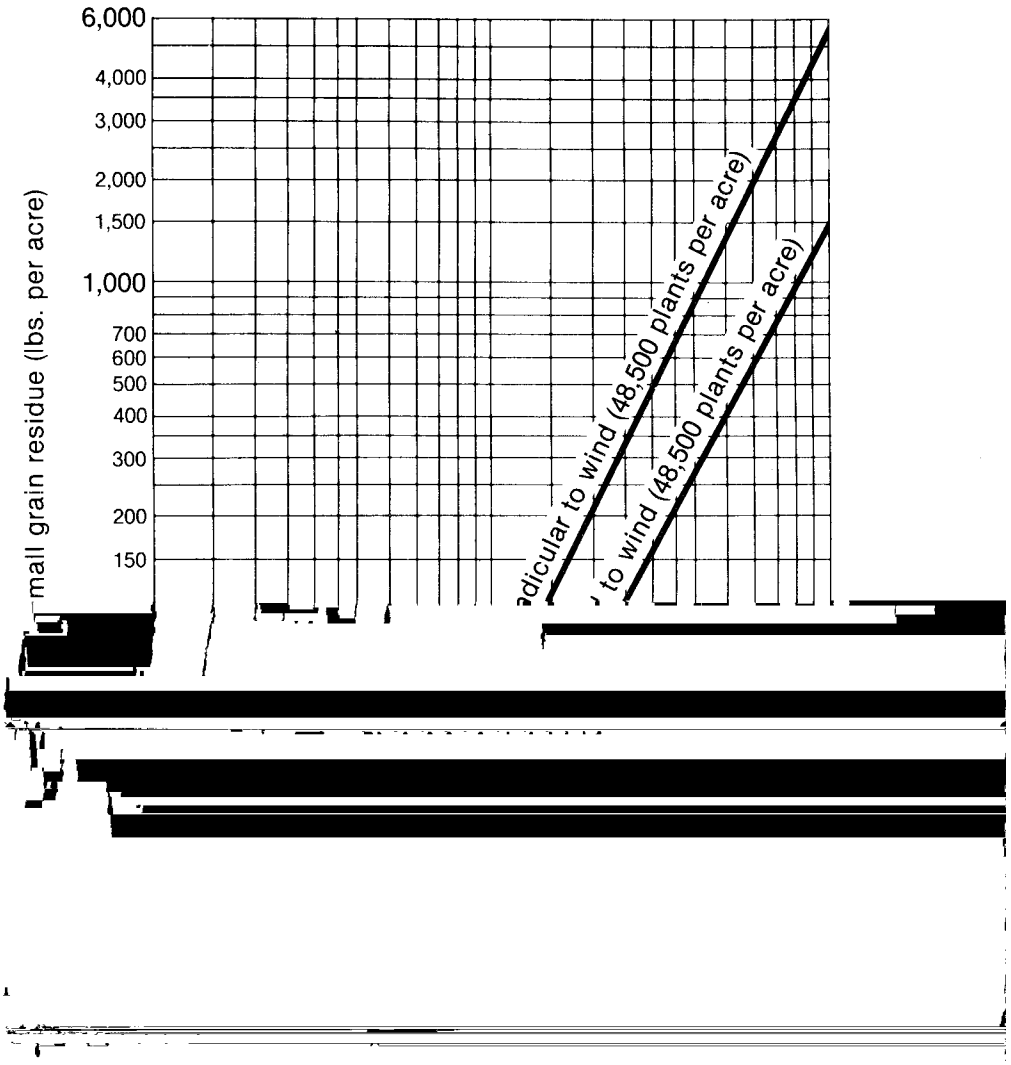


Reference condition - dry small grain stalks 10” long, lying flat on the soil surface in 10” rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Armbrust and Lyles, 1984-unpublished..

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Cotton: Days After Emergence

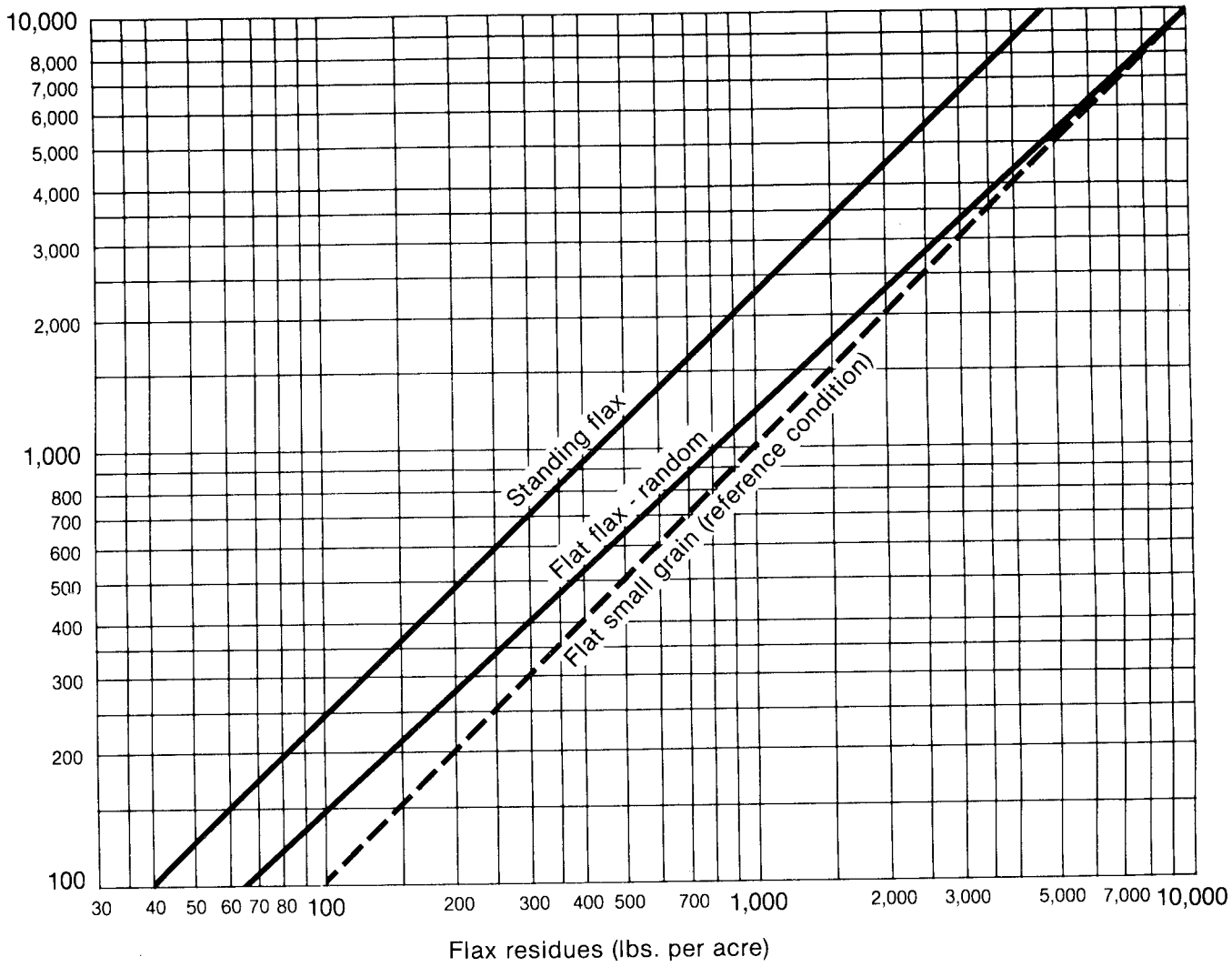


Source: Armbrust and Lyles, 1984-unpublished.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Flax Residues

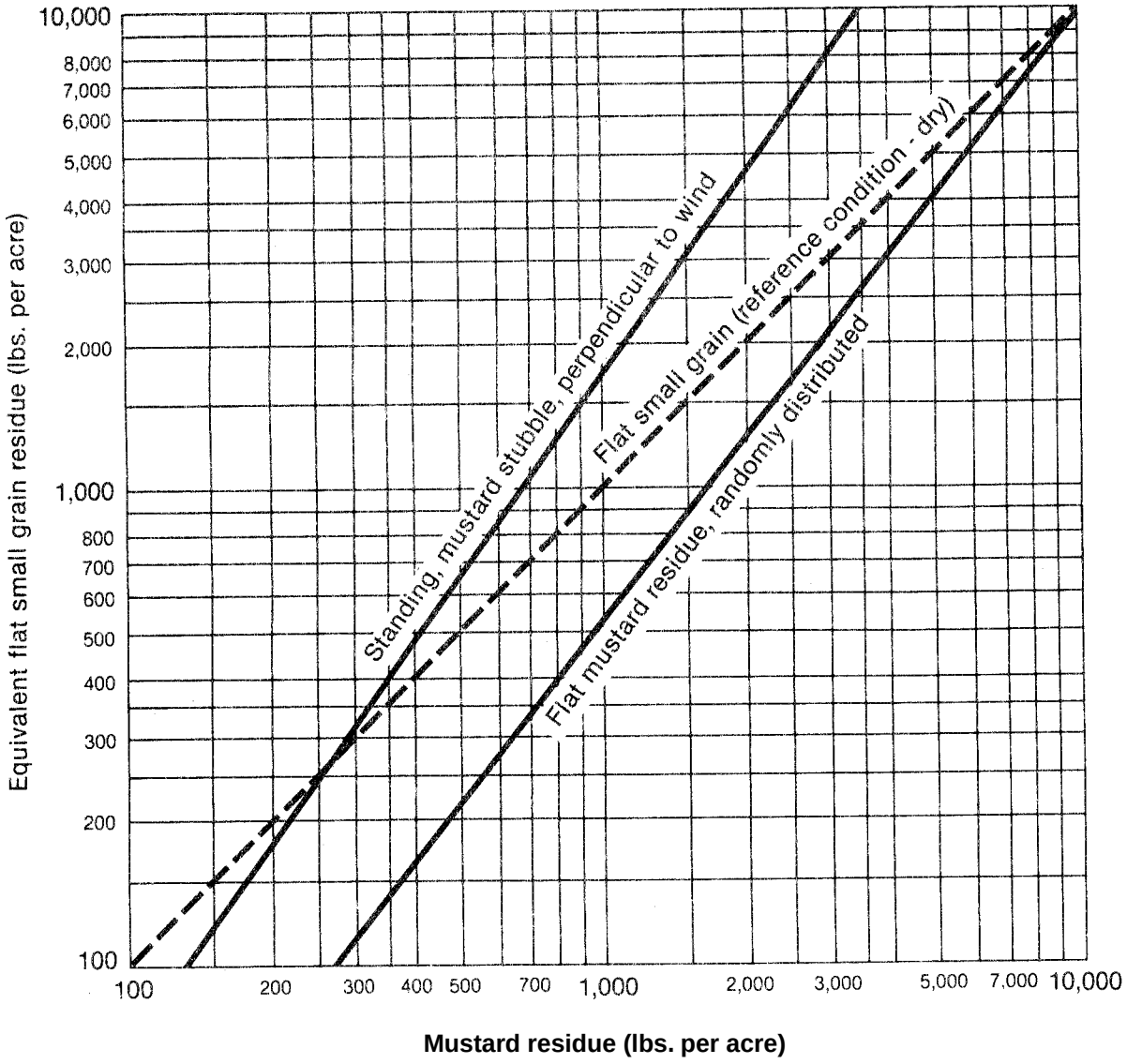


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Best Judgement Estimates by SCS. (North Central Agronomists, 11/84).

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalent Mustard Residue

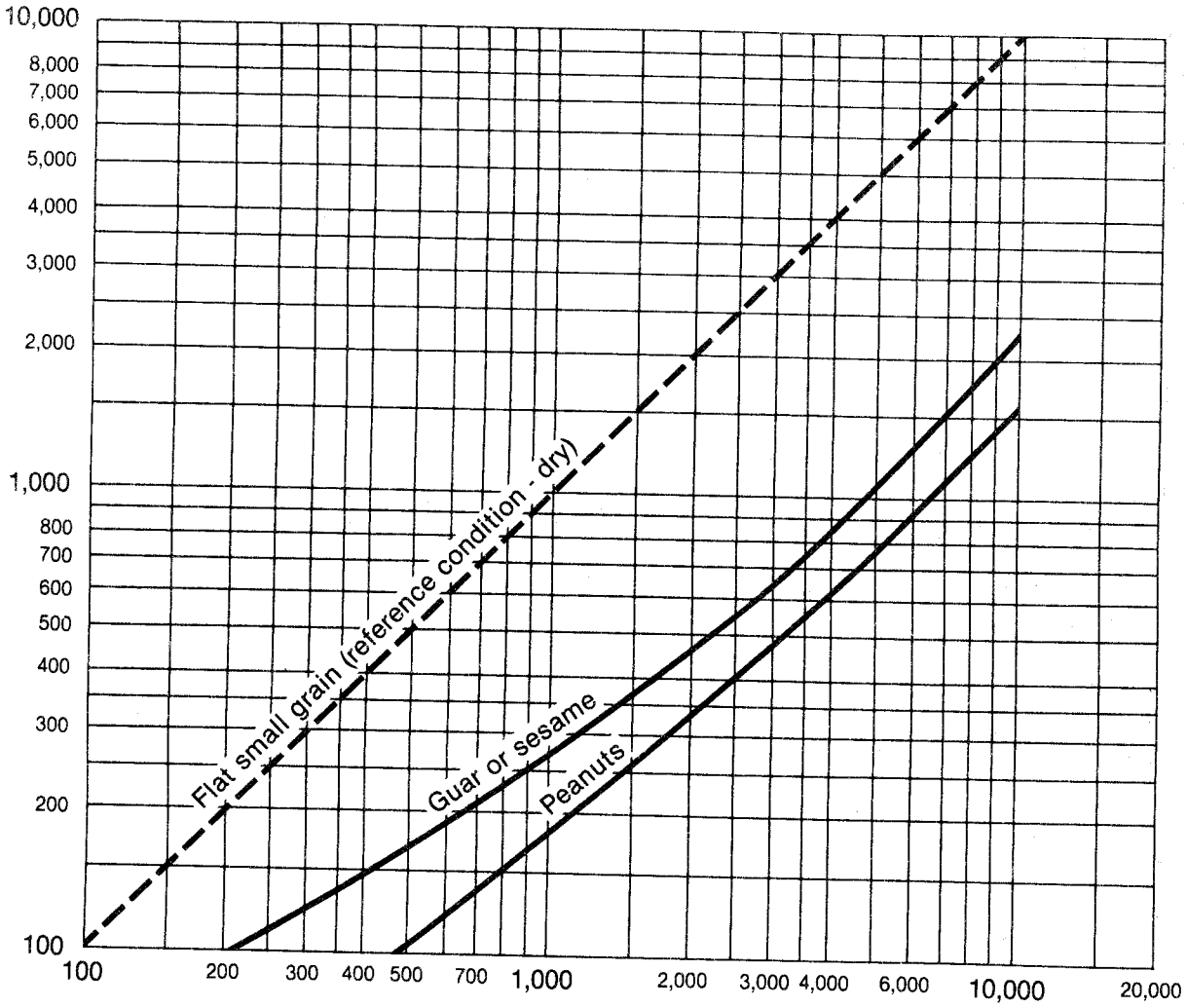


Source: Best Judgement Estimates by SCS. Western Agronomists, 1983.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Peanuts, Guar, and Sesame Residues



Source: Best Judgement Estimates by SCS.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Peanuts

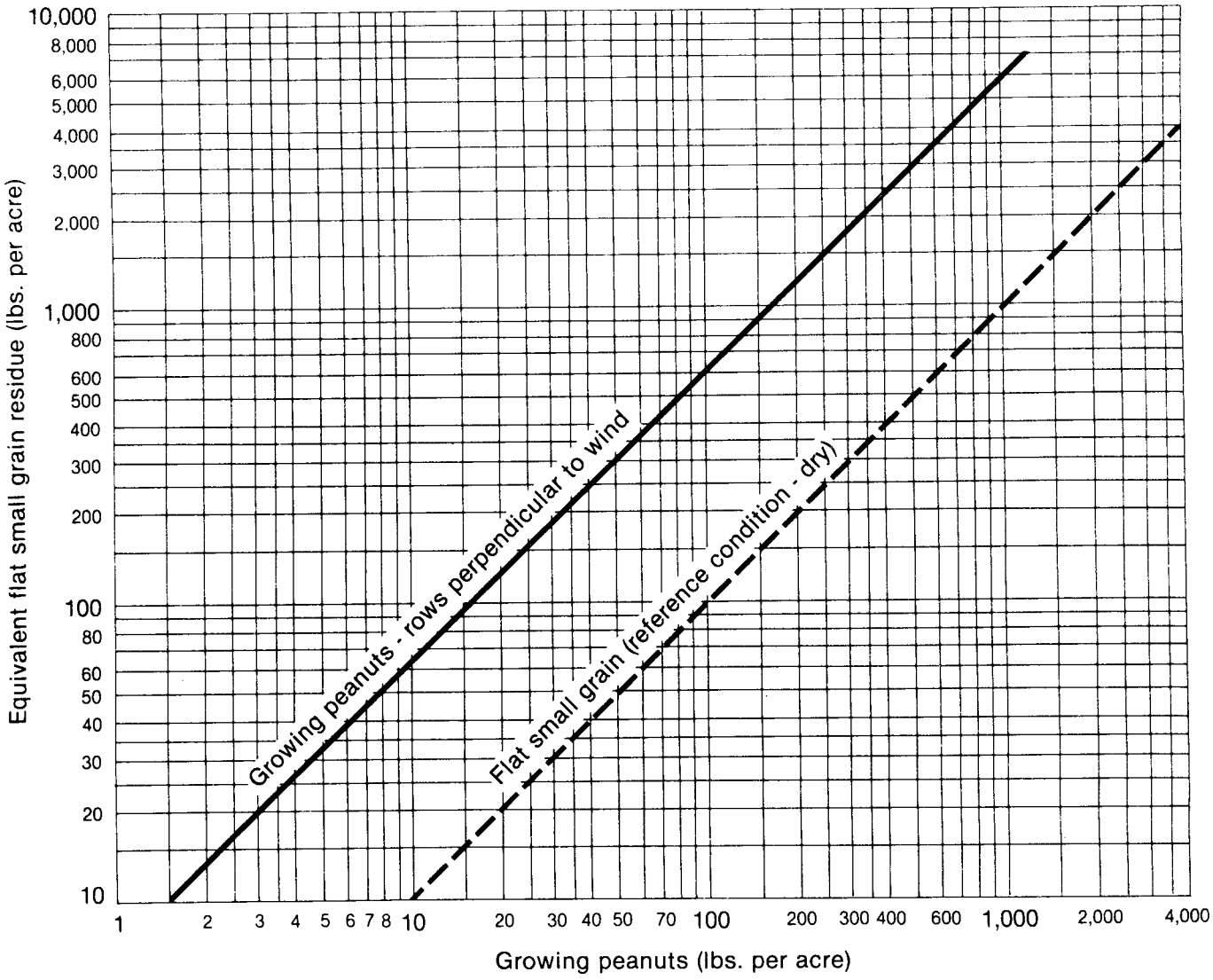
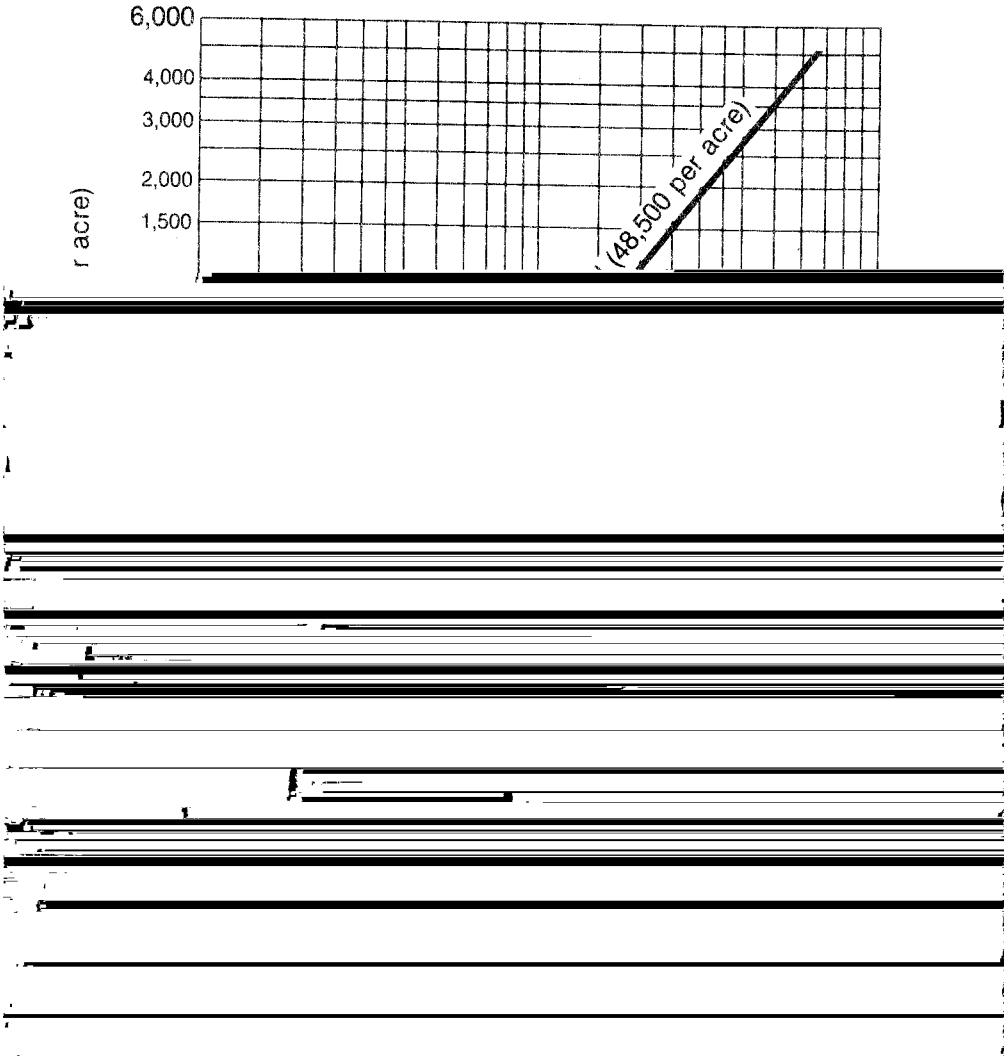


Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Growing Peanuts: Days After Emergence



Source: Armbrust and Lyles, 1984-unpublished.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Potato and Sugar Beet Residue

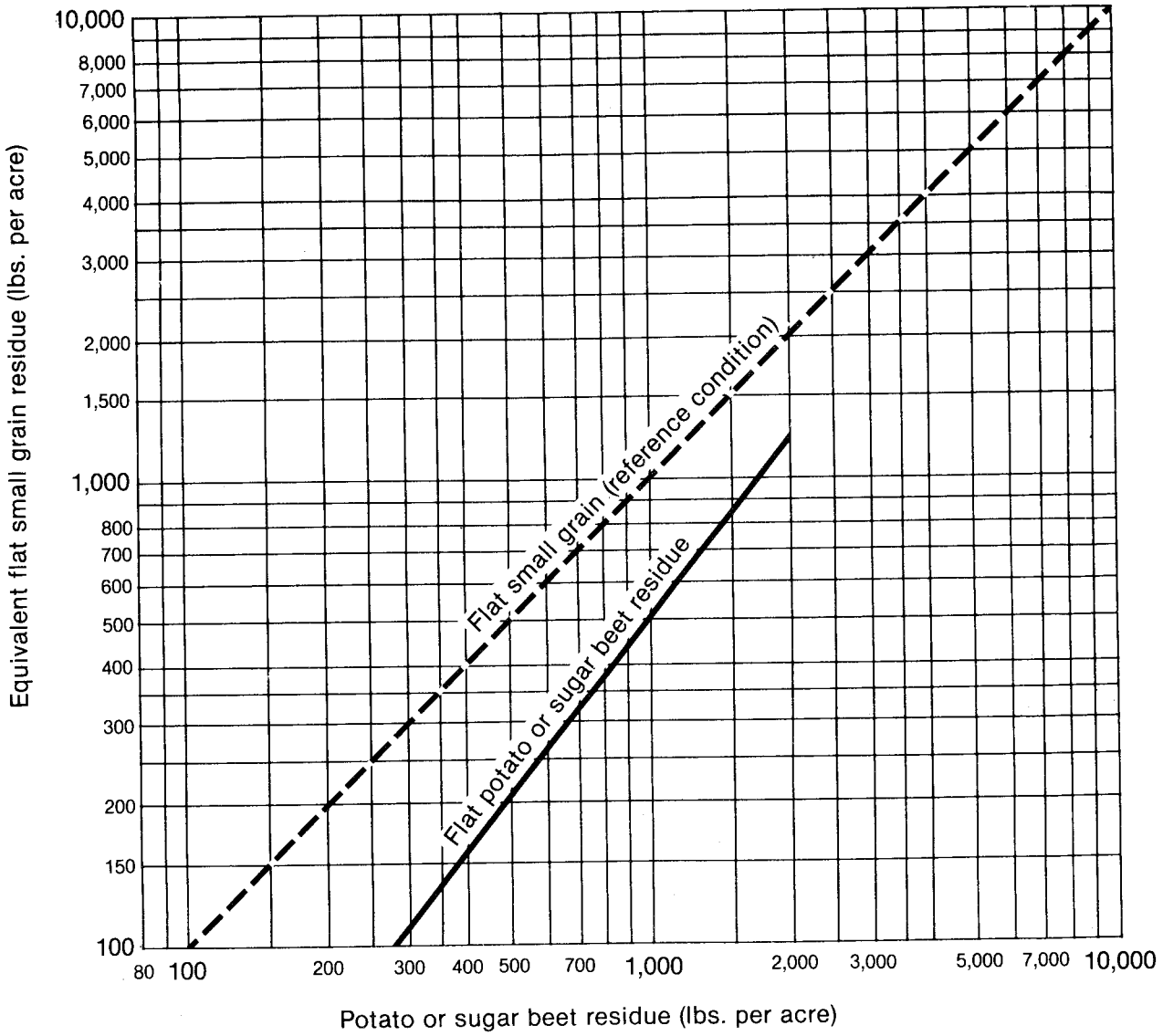
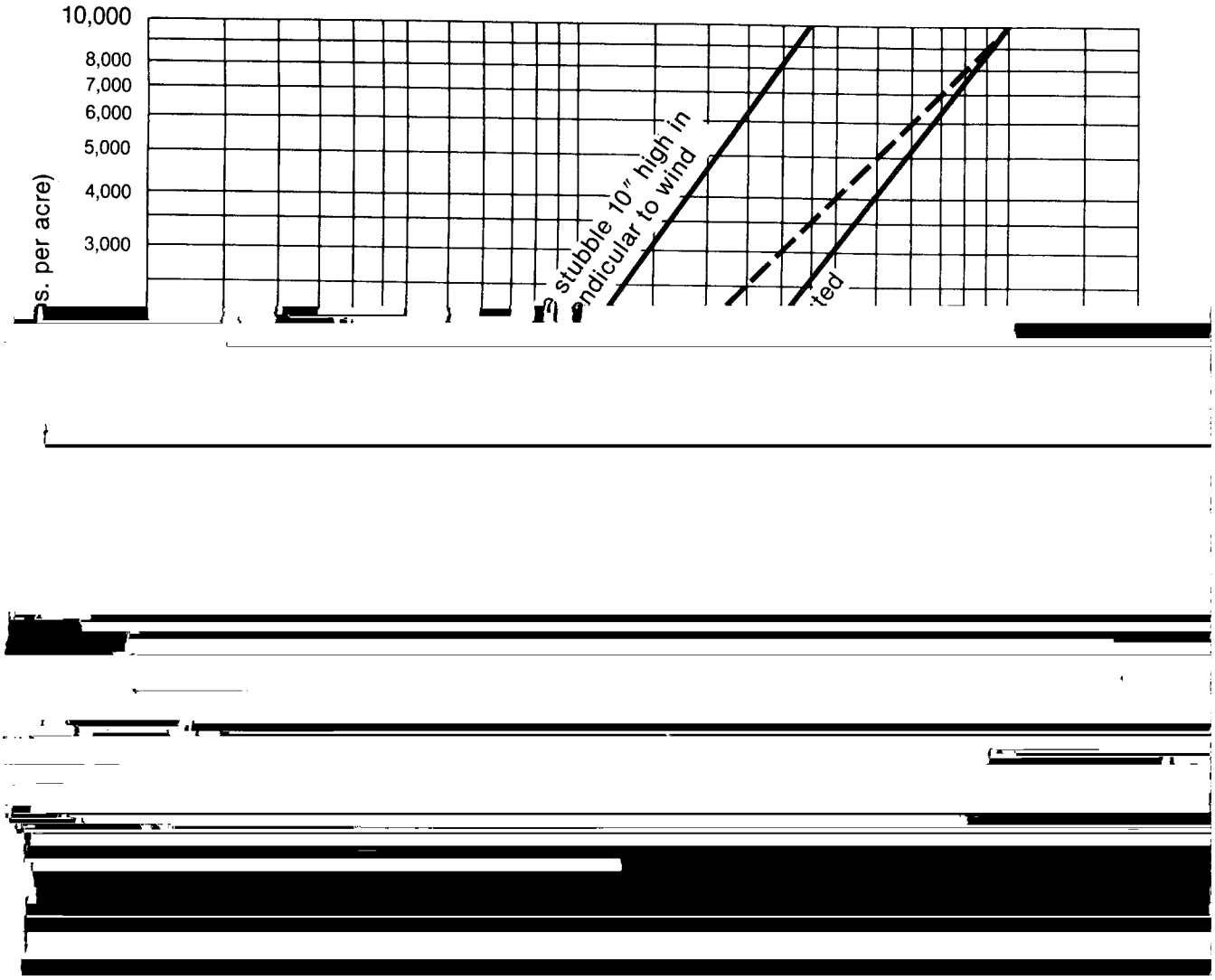


Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Rape Residues

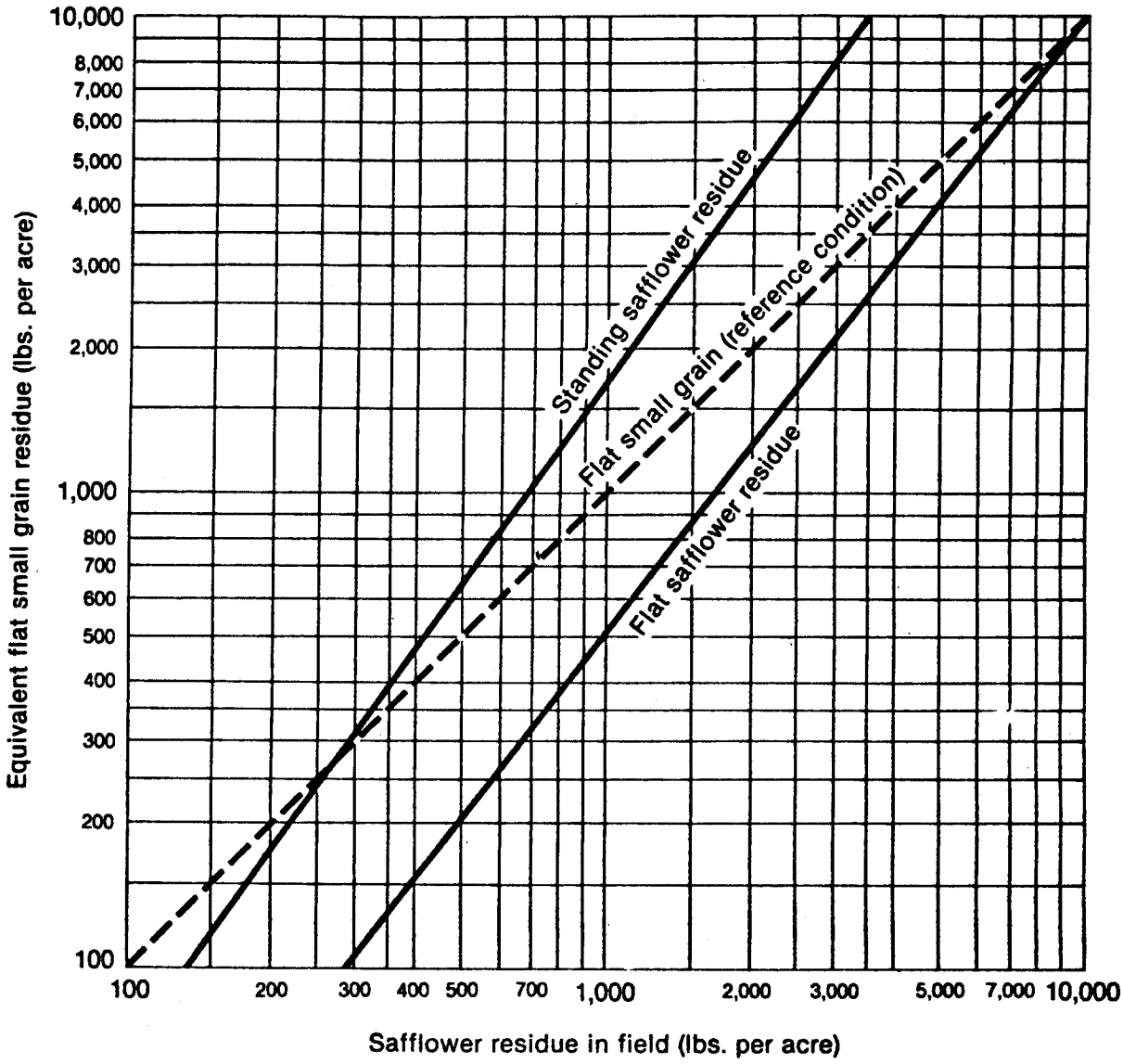


Source: Lyles and Allison, Trans. ASAE 1981, 24(2): 405-408.
Residue wts. are washed, air dried, and placed as described.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents Safflower Residue

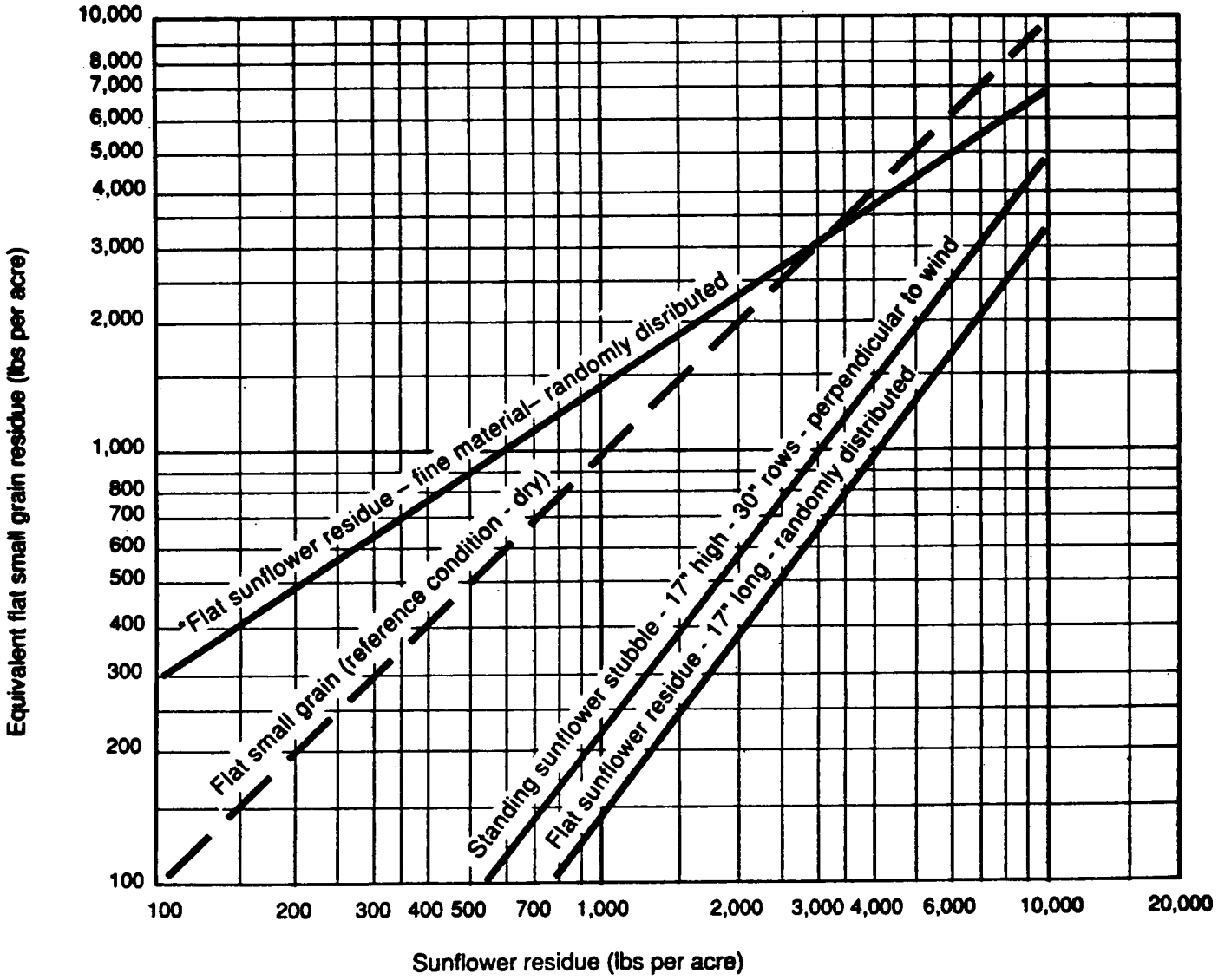


Reference condition - dry small grain stalks 10” long, lying flat on the soil surface in 10” rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Best Judgement Estimates by SCS, North Central Agronomists, 11/84.

Exhibit 2. SGe curves for estimating V factor — Continued

1994

Flat Small Grain Equivalents of Sunflower Residue

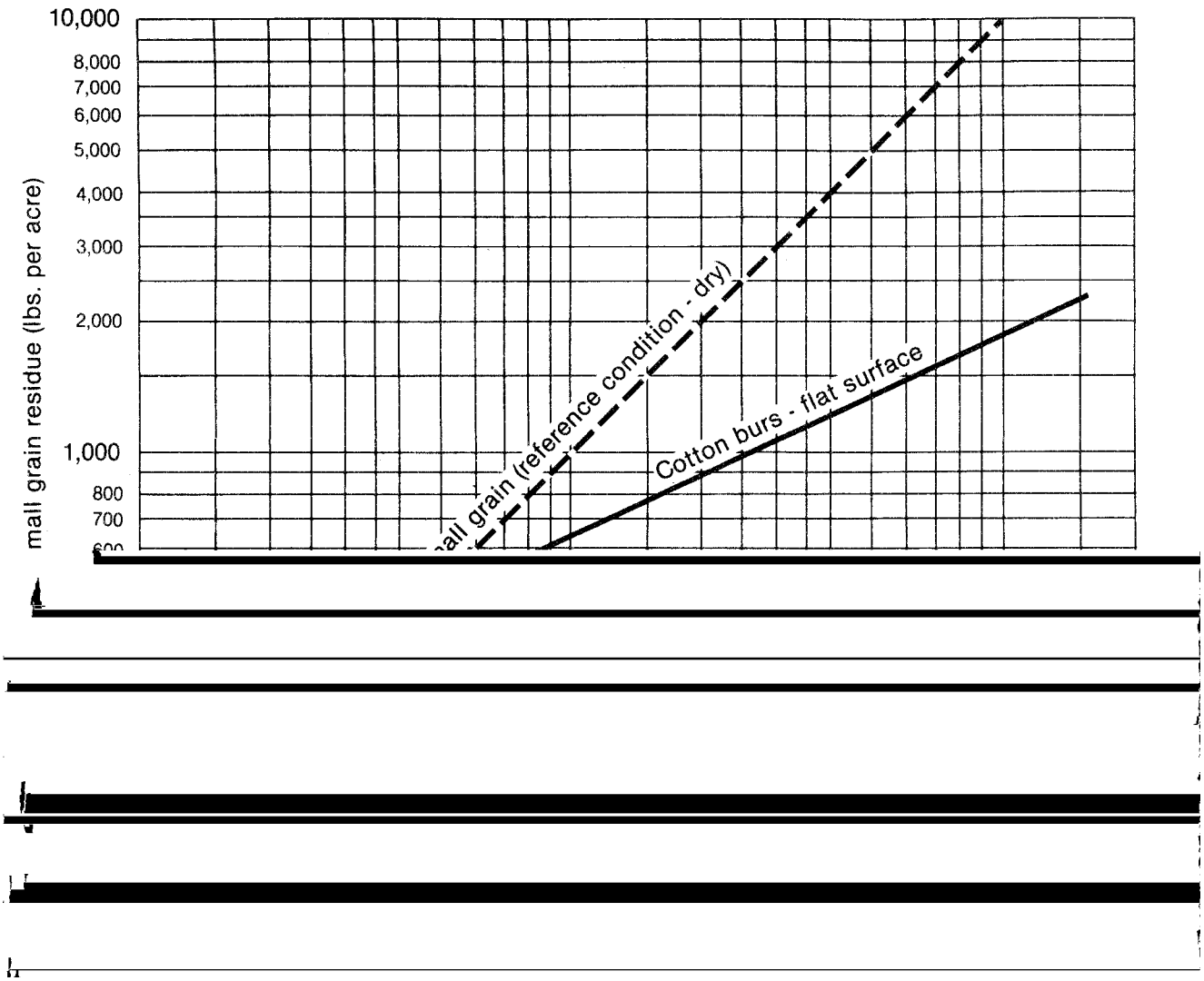


Source: Lyles and Allison, Trans. ASAE 1981, 24(2): 405-408.
Residue wts. are washed, air dried, and placed as described for wind tunnel test.
*Best judgement estimate - ND workgroup 8/87.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalent of Cotton Burs

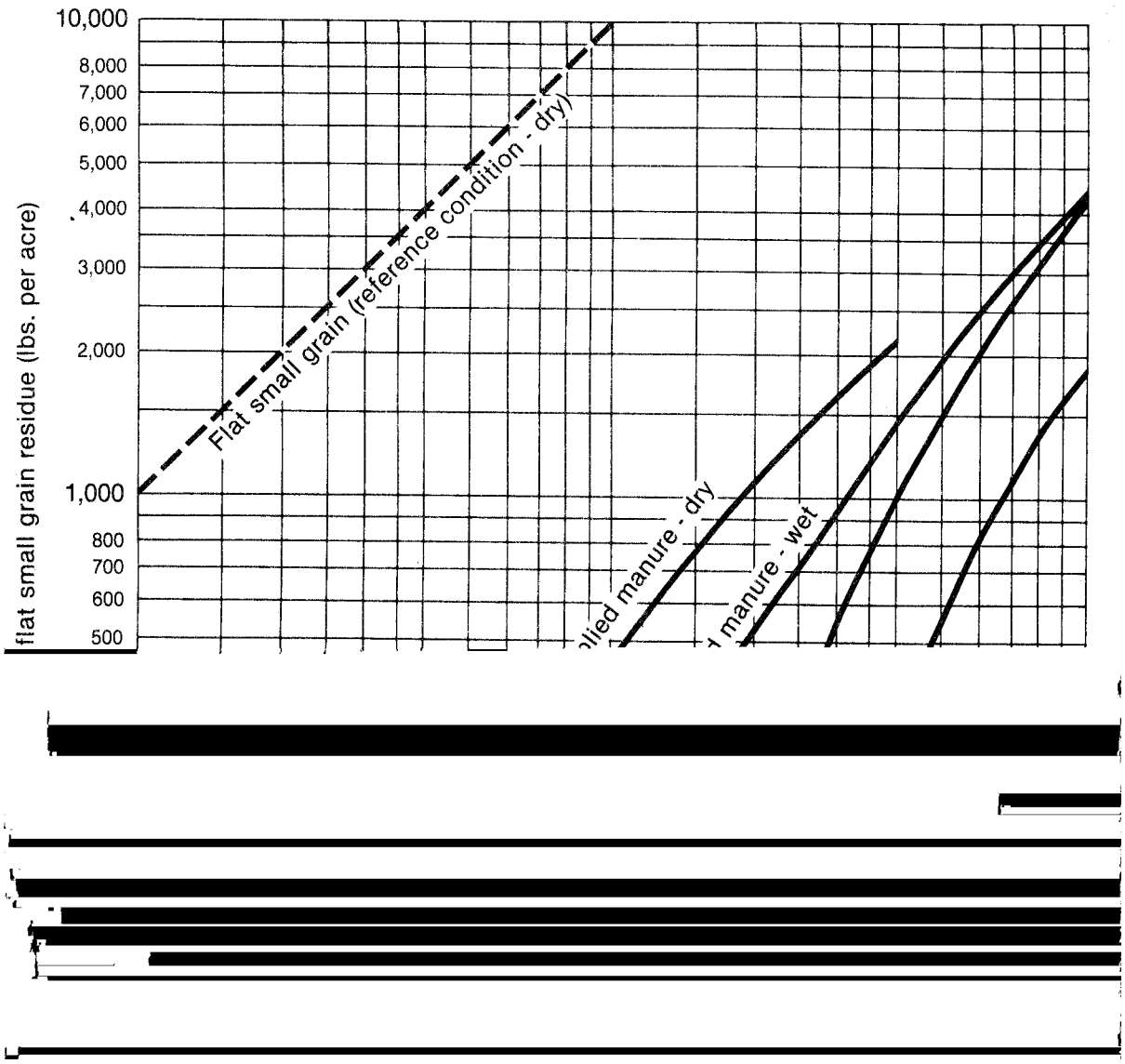


Source: Research by D.W. Fryrear, ARS, Big Spring, Texas.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalent of Manure

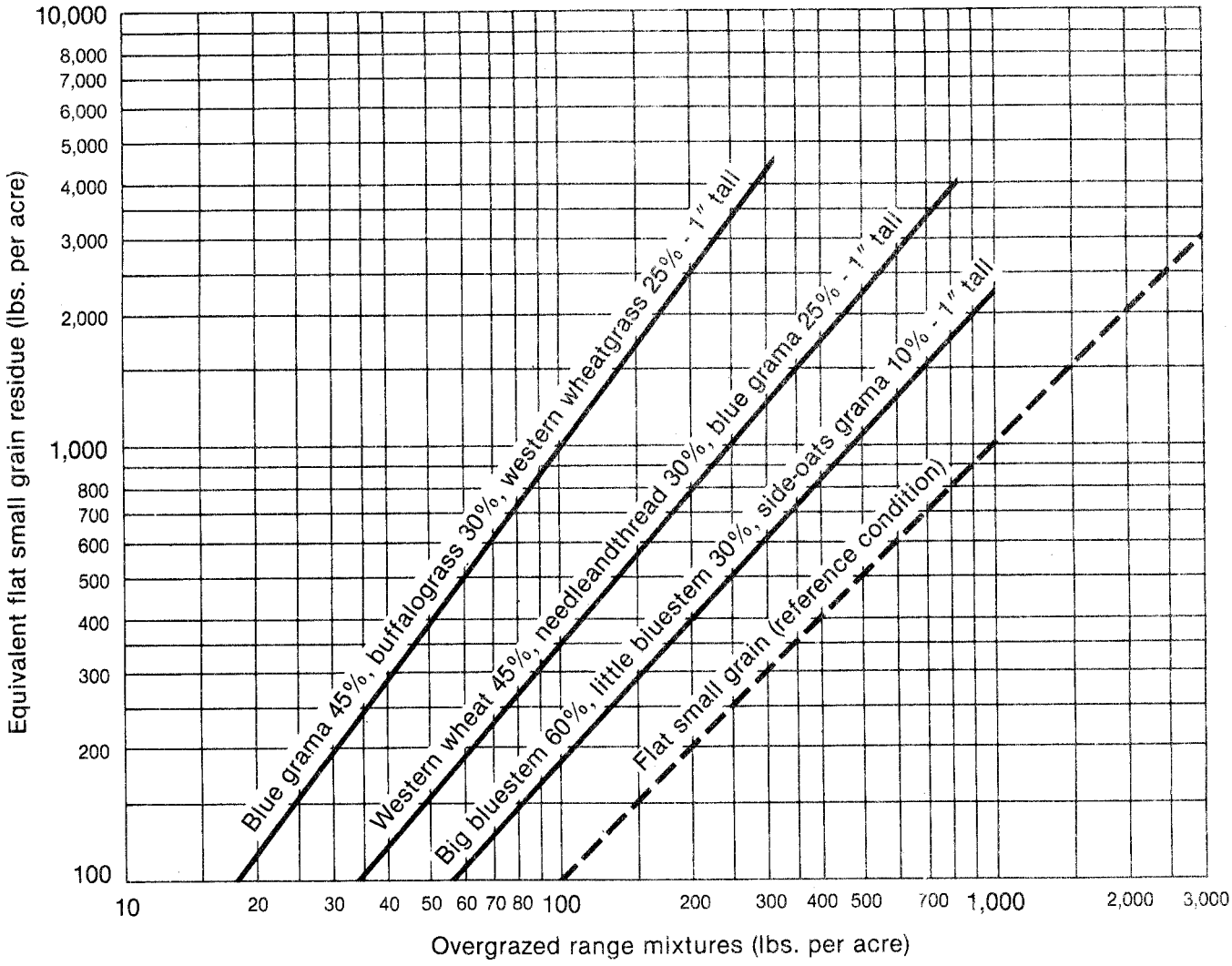


Source: Woodruff, N.P., L. Lyles, J.D. Dickerson, and D.V. Ambrust. 1974 Journal Soil and Water Conservation 29(3), pages 127-129.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

**Flat Small Grain Equivalents of Overgrazed Range Mixtures—
Big Bluestem, Little Bluiestem, Side-Oats Gama, Western Wheatgrass,
Needleandthread, Blue Grama, and Buffalograss**

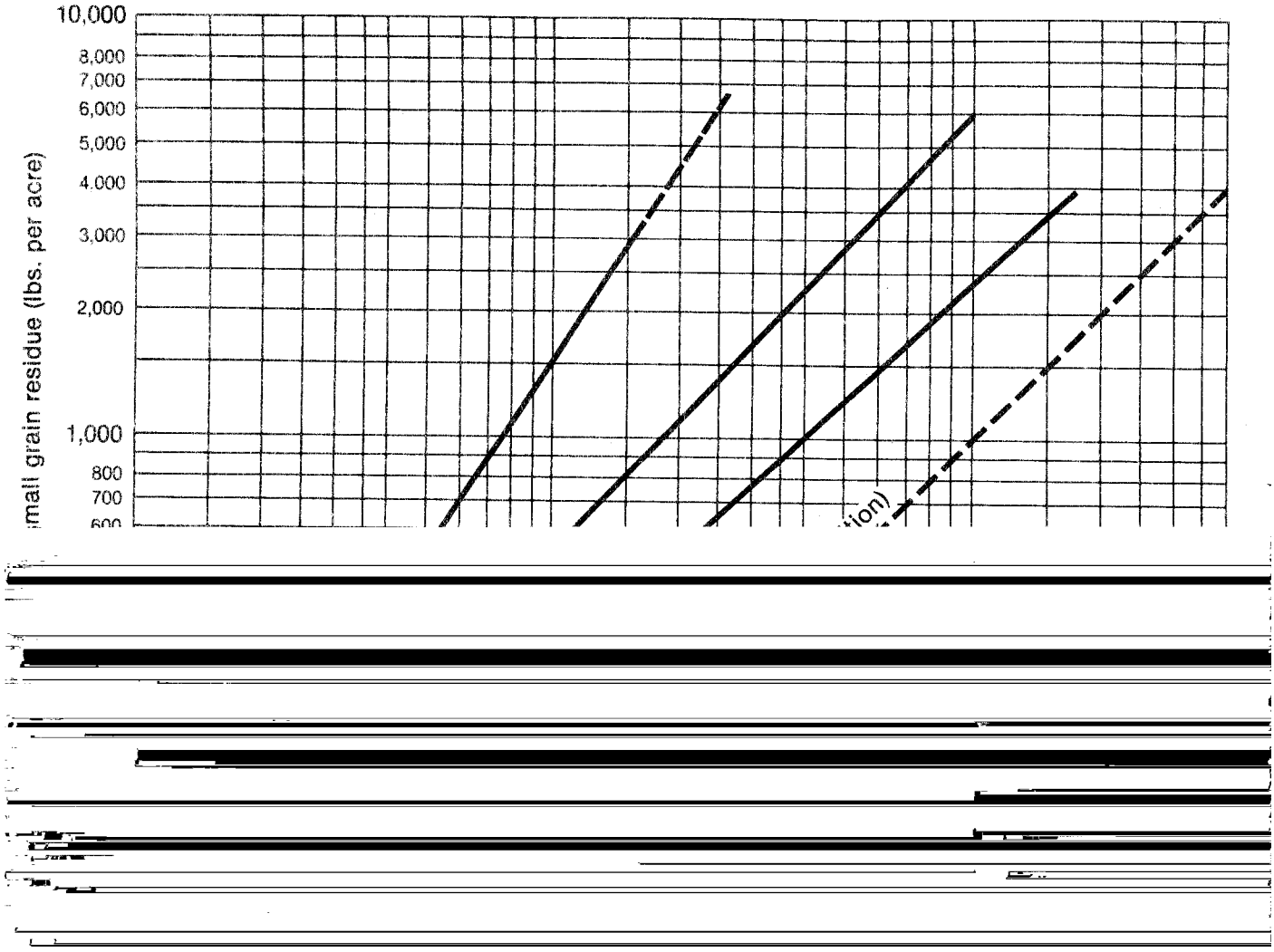


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Mangement, 33(2), pages 143 - 146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Overgrazed Big Bluestem, Western Wheatgrass, and Buffalograss

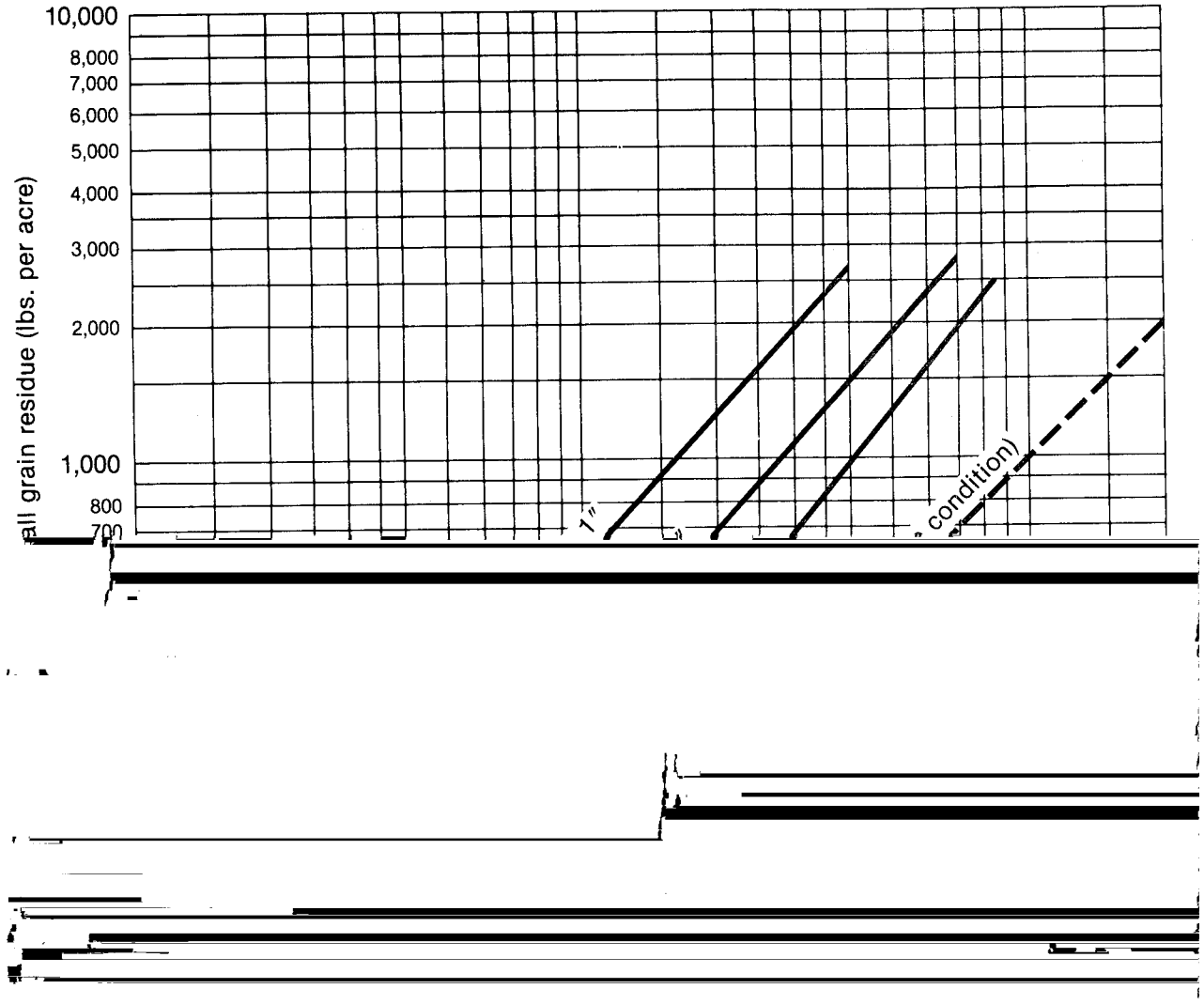


Reference condition - dry small grain stalks 10” long, lying flat on the soil surface in 10” rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Overgrazed Little Bluestem, Switchgrass, and Blue Grama

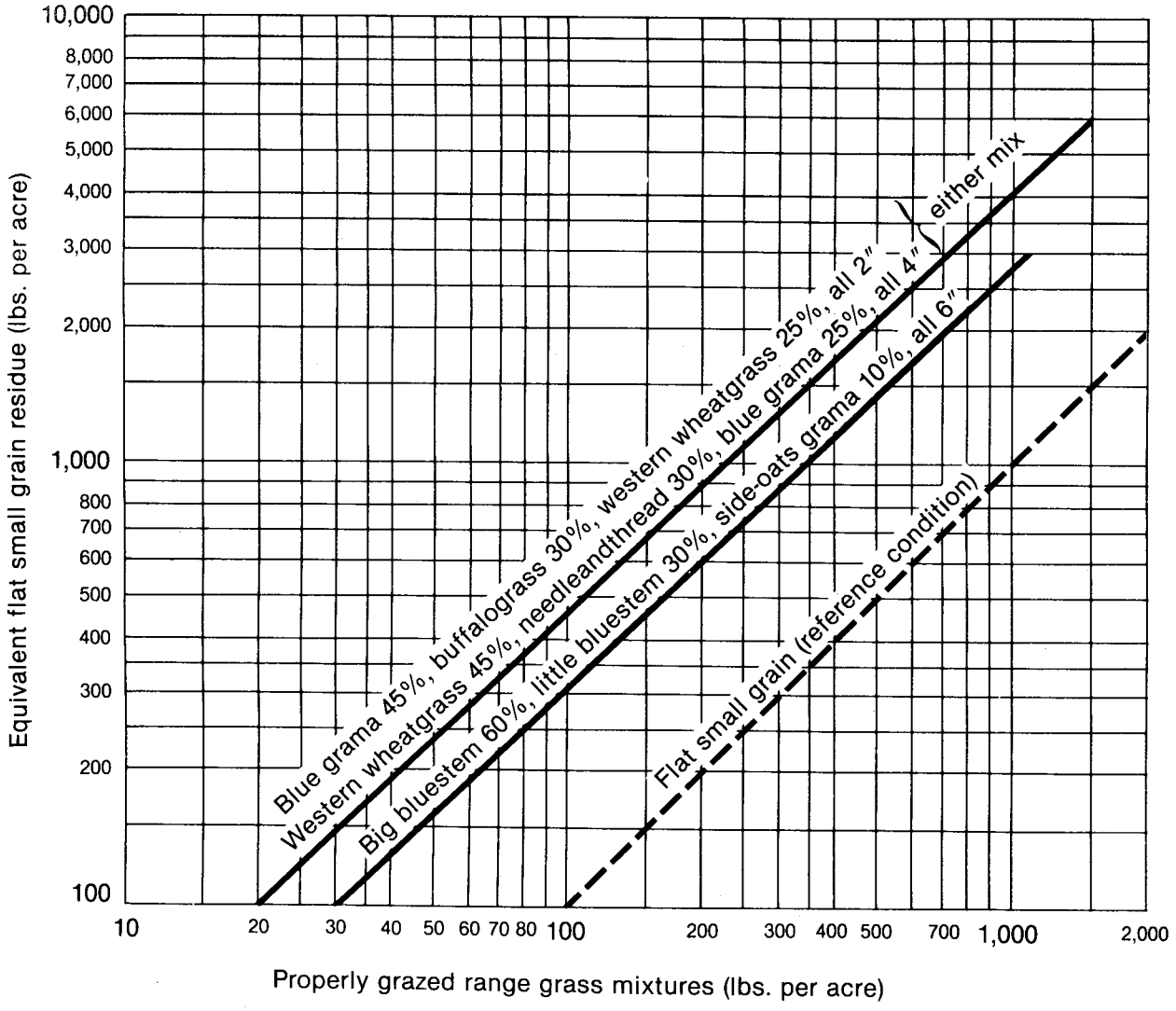


Reference condition - dry small grain stalks 10” long, lying flat on the soil surface in 10” rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Properly Grazed Range Grass Mixture

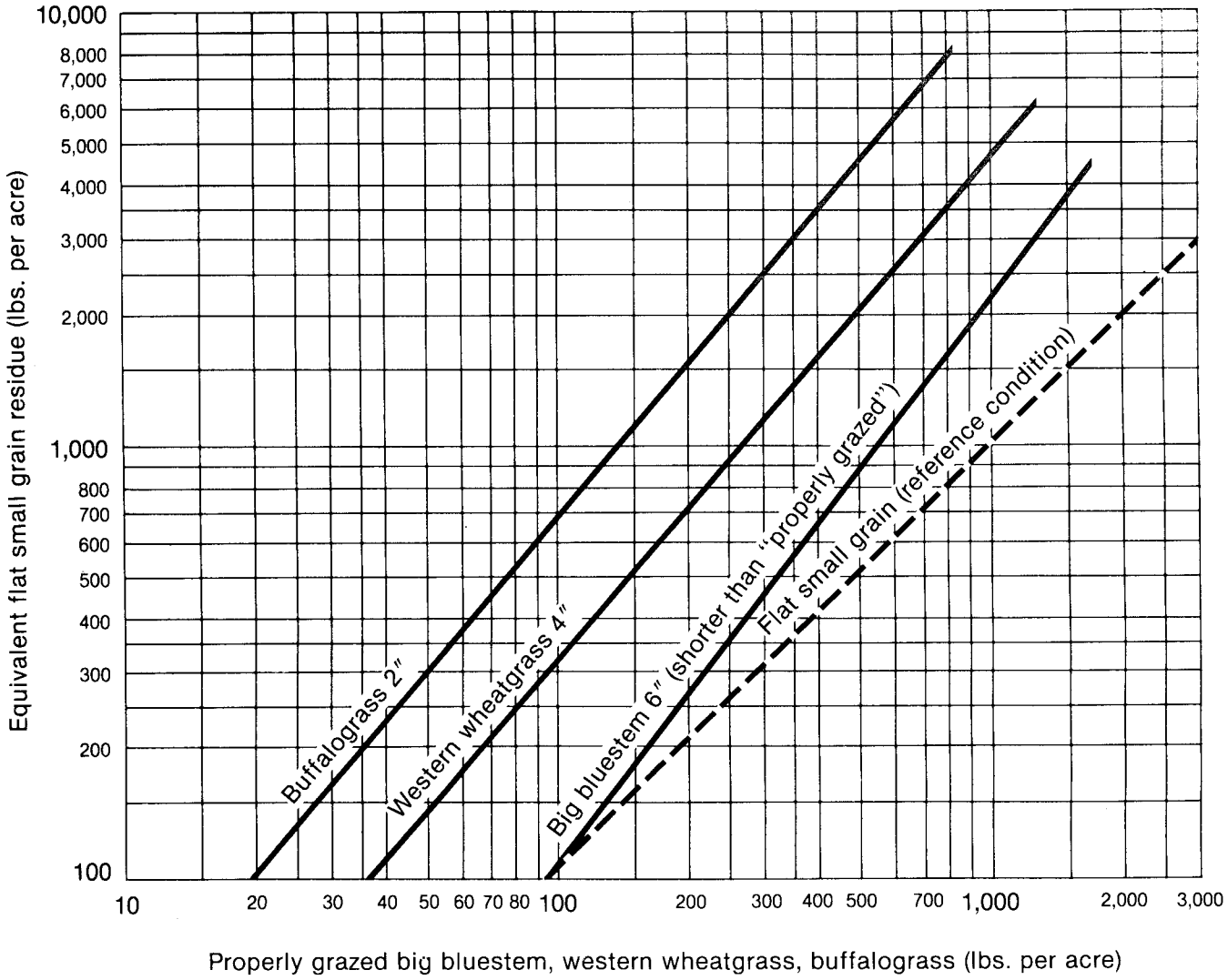


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Properly Grazed Big Bluestem, Western Wheatgrass, and Buffalograss

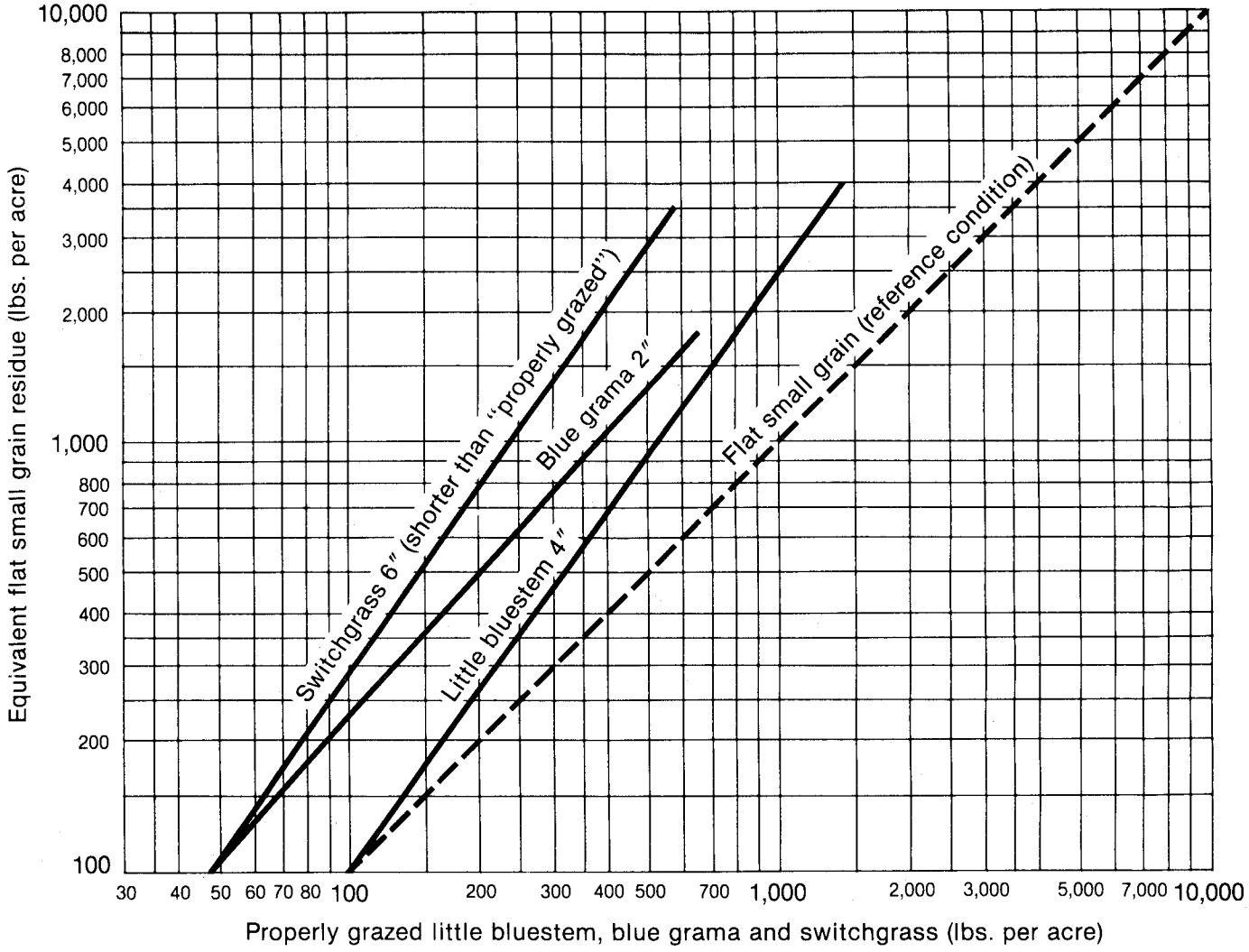


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Properly Grazed Little Bluestem, Blue Grama, and Switchgrass

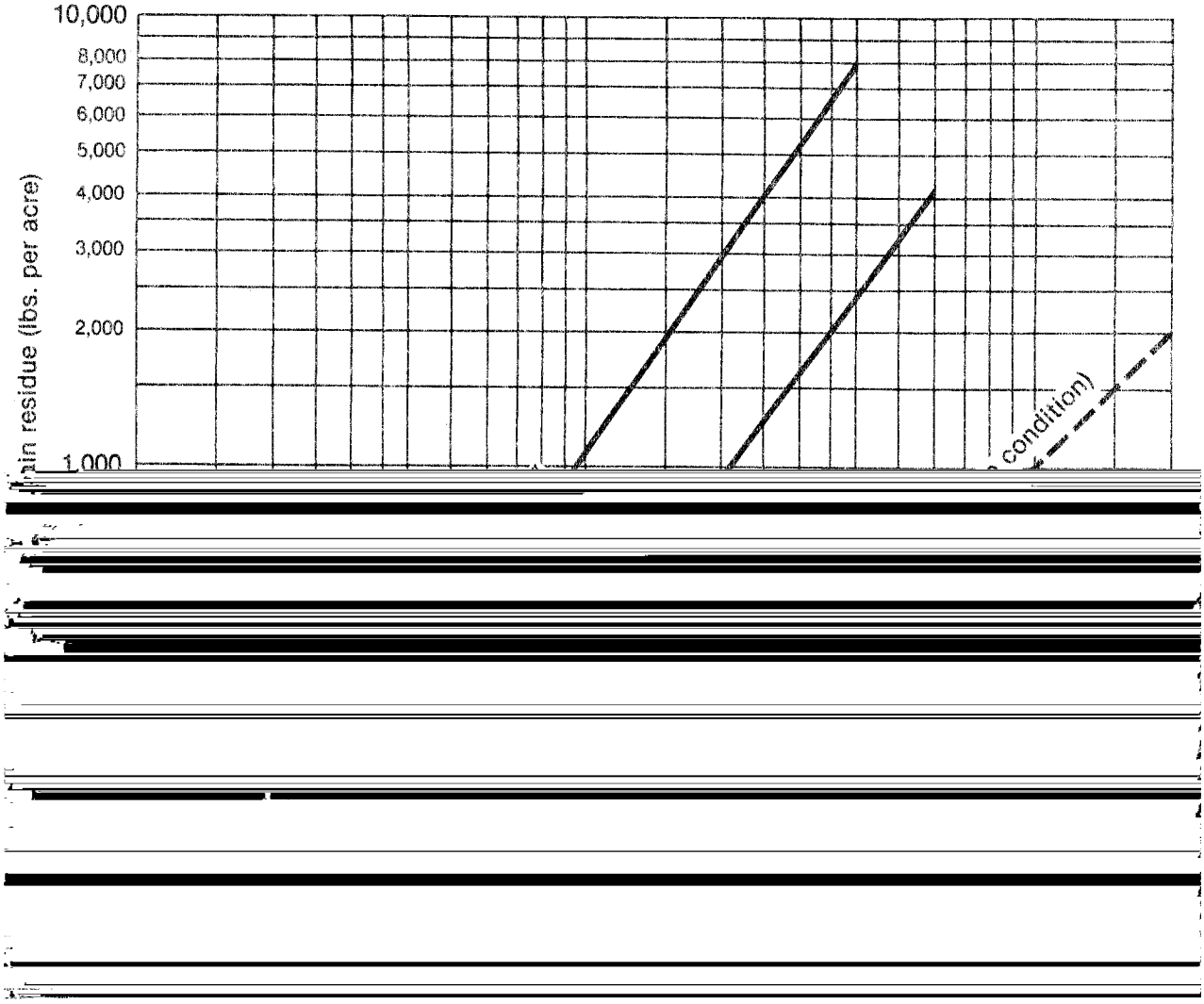


Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Ungrazed Blue Grama and Buffalograss

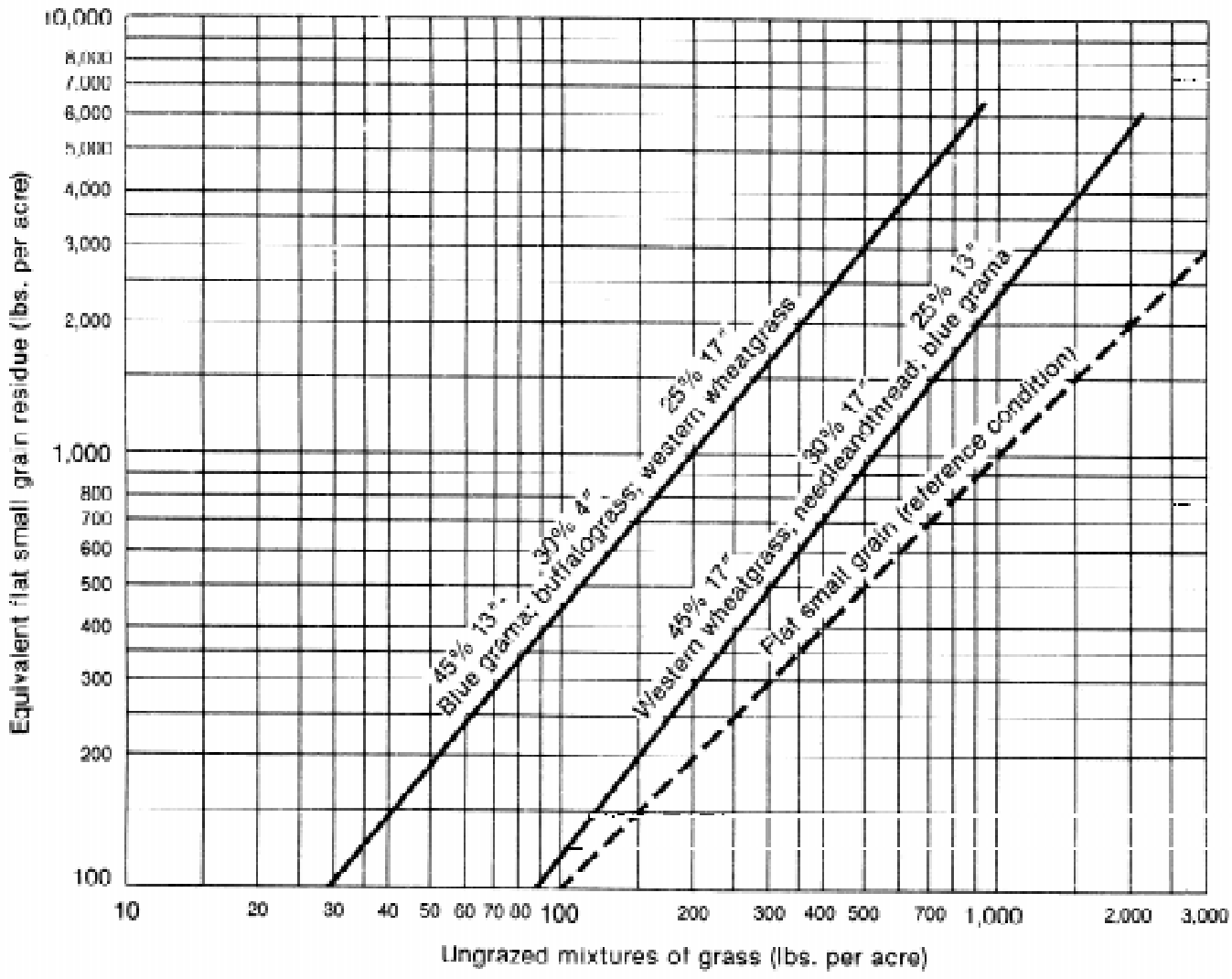


Reference condition - dry small grain stalks 10” long, lying flat on the soil surface in 10” rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.

Exhibit 2. SGe curves for estimating V factor — Continued

1985

Flat Small Grain Equivalents of Ungrazed Western Wheat, Needleandthread, Blue Grama, and Buffalograss Mixtures



Reference condition - dry small grain stalks 10" long, lying flat on the soil surface in 10" rows, rows perpendicular to wind direction, stalks oriented to wind direction.
Source: Lyles and Allison - 1980 Journal Range Management, 33(2), pages 143-146.